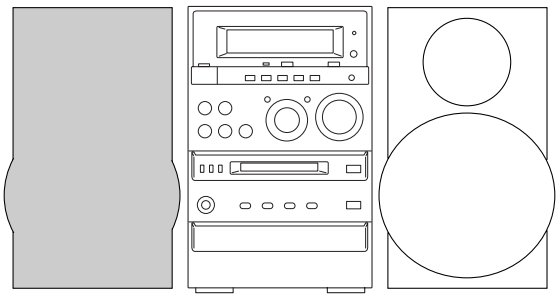
aiwa SERVICE

XR-MD100 K(S)
XR-MD101 EZ(S)



SERVICE MANUAL

MD/CD STEREO SYSTEM

BASIC MD MECHANISM : 7ZG-9 YB
BASIC CD MECHANISM : 3ZG-3 E3N
BASIC TAPE MECHANISM : 2ZM-1 YR9

aiwa

S/M Code No. 09-993-315-0R3

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SPECIFICATIONS

MAIN UNIT XR-MD100

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

MW tuner section

Tuning range	531 kHz to1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

LW tuner section

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

Amplifier section

Power output	Rated: 25 W+25 W (6 ohms, T.H.D. 1%,1 kHz/DIN 45500) Reference: 30+30 W (6 ohms, T.H.D. 10%,1 kHz/DIN 45324) DIN MUSIC POWER (EZ MODEL) 66.9 W+66.9 W
Inputs	VIDEO/AUX: 400 mV DIGITAL IN sampling frequency: 48 kHz/32 kHz Optical input level: more than -21 dBm
Outputs	SUPER WOOFER: 1.4 V SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo minijack): accepts headphones of 16 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	CrO_2 tape: 50 Hz–16000 Hz Normal tape: 50 Hz–15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO_2 tape peak level)
Recording system	AC bias
Heads	Deck: Recording/playback/erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ=780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	90 dB (1 kHz, 0 dB)
Harmonic distortion	0.05% (1 kHz,0 dB)
Wow and flutter	Unmeasurable

MD recorder section

Scanning method	Non-contact optical scanner (Semiconductor laser application)
Recording system	Magnetic polarity modulation overwrite system
Rotation speed	Approx.400-900 rpm (CLV)
Sampling frequency	44.1 kHz
No. of channels	Stereo: 2 channels Monaural: 1 channel
A-D, D-A converter	1-bit
Frequency	20–20000 Hz+0.2– -1.5 dB
Wow and flutter	Unmeasurable

SPEAKER SYSTEM SX-M100

Cabinet type	2 way, bass reflex (magnetic shielded type)
Speakers	Woofer: 130 mm cone type Tweeter: 60 mm cone type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W × H × D)	175 × 275 × 227 mm
Weight	3.0 kg

General

Power requirements	230 V AC, 50 Hz
Power consumption	80 W
Standby power consumption	1.4 W (power-economizing mode set to ON)
Dimensions (W × H × D)	175 × 275 × 333 mm
Weight	6.0 kg

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol ⧏⧐ are trademarks of Dolby Laboratories Licensing Corporation.
- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound,Inc.
  Under license from BBE Sound,Inc.

ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

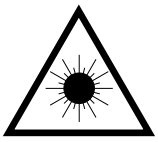
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	87-A90-118-010		ANT,WIRE FM (Z)
2	87-A90-030-010		ANT,LOOP AM-NC C
3	8Z-CL4-906-010		IB,EZ(9L)S<EZ>
3	8Z-CL4-905-010		IB,K(E)S<K>
4	8Z-CK4-952-010		RC UNIT,RC-ZAT04

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

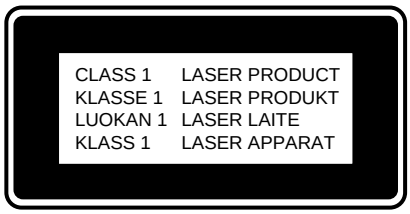
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

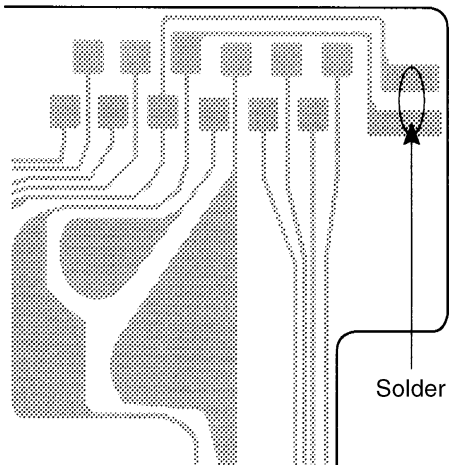


Precaution to replace Optical block (KSS-213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.

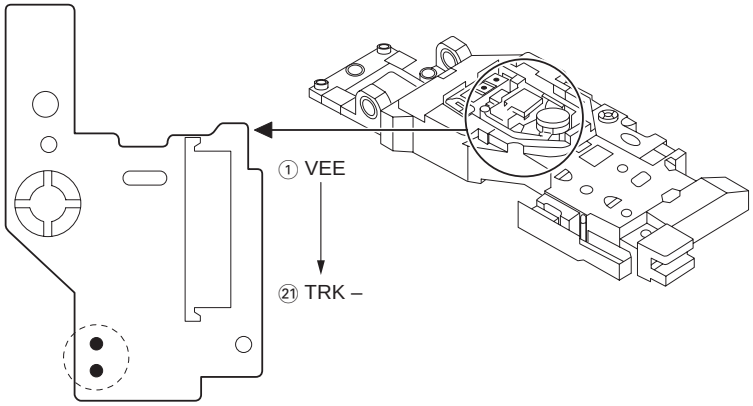
PICK-UP Assy P.C.B



Precaution to replace Optical block (KMS-260A)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.

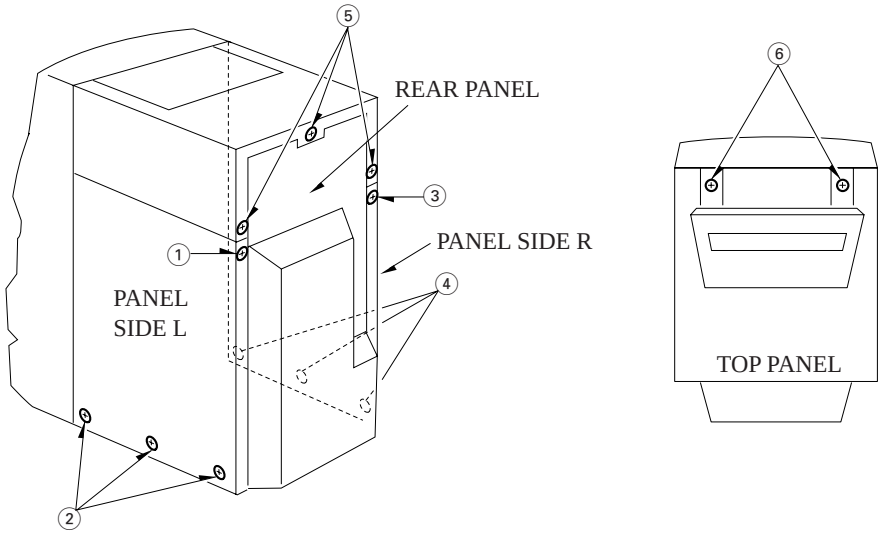


DISASSEMBLY INSTRUCTIONS

Disassembly Procedure

1. Open the cabinet

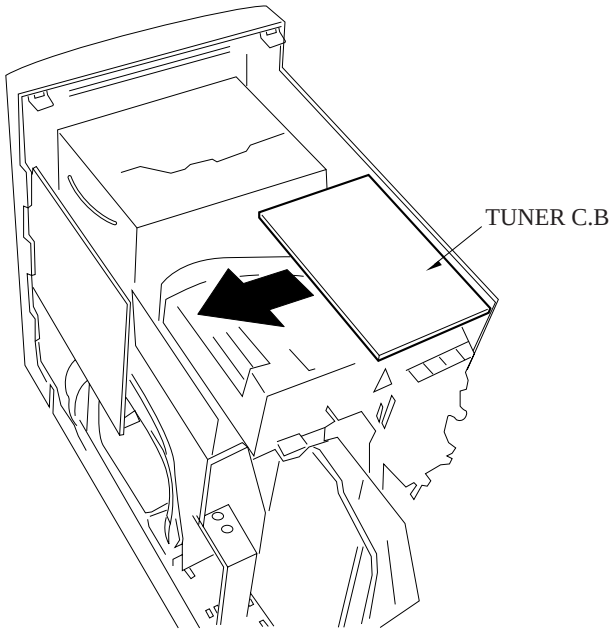
1) Remove the screws (①BVT2+3-10✕1, ②UTT2+3-6✕3 w/o SLOT B), and remove the PANEL SIDE L.
2) Remove the screws (③BVT2+3-10✕1, ④UTT2+3-6✕3 w/o SLOT B), and remove the PANEL SIDE R.
3) Remove the screw (⑤BVT2+3-10✕3) from the rear side, open the deck lid, remove the screw (⑥BVT2+3-16✕2), and remove the TOP PANEL.



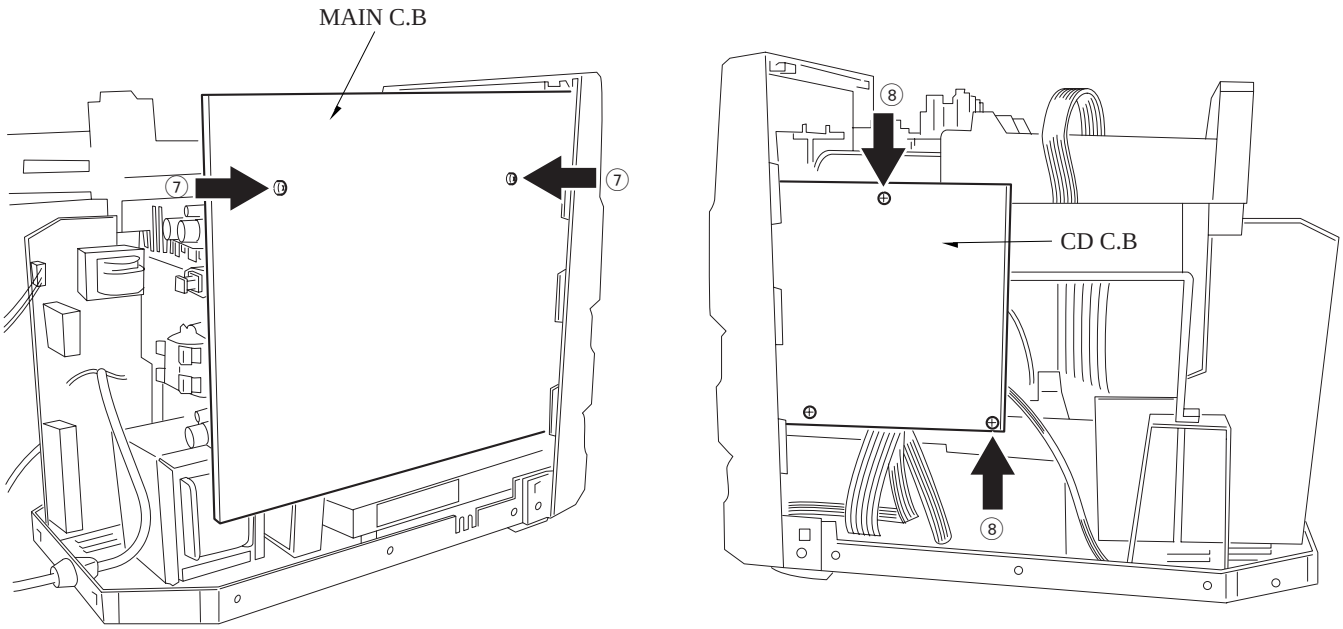
4) Remove the screw (BVT2+3-10✕11) from the rear side, and remove the REAR PANEL.

2. Removing the deck mechanism.

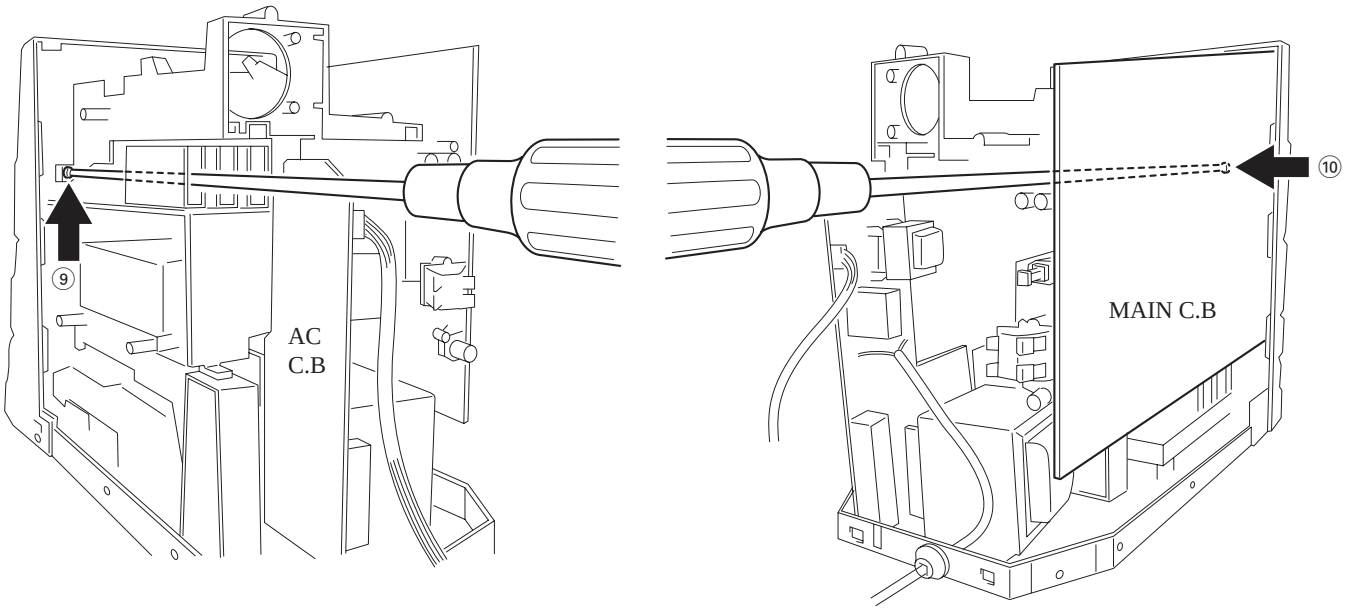
1) Remove the TUNER C.B in the direction of the arrow.



2) Remove the screw (⑦BVT2+3-10✕2) on the top of the MAIN C.B, and remove the screw (⑧BVT2+3-10✕3) from the CD C.B.



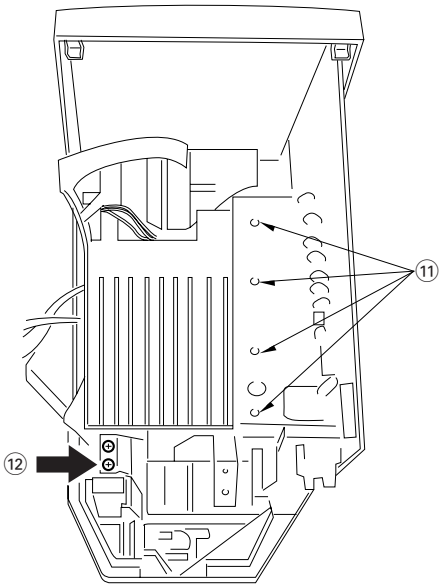
3) Remove the CD C.B, remove the screw (⑨UTT2+3-6✕1), insert a screwdriver tip through the clearance between the parts and the chassis, and remove the screw (⑩UTT2+3-6✕1).



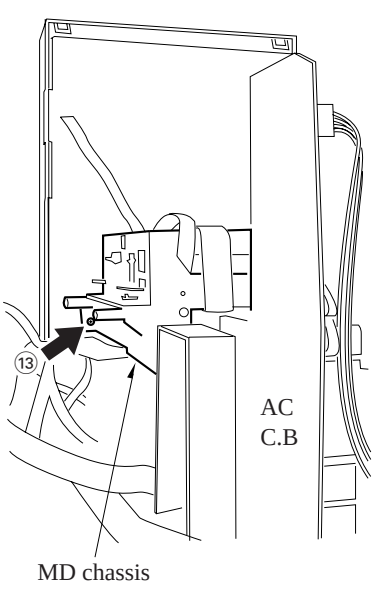
4) Remove the cord, and remove the deck mechanism together with the chassis.

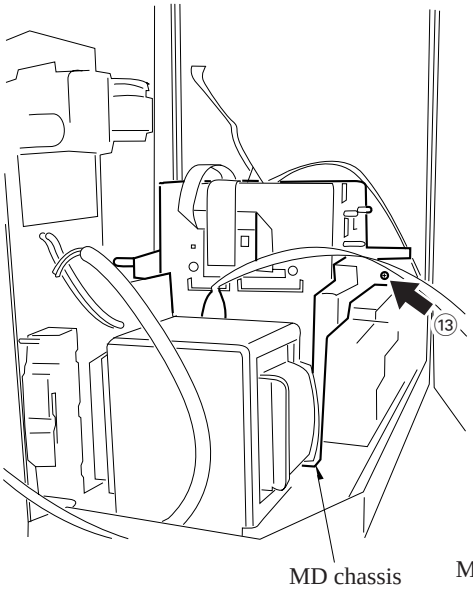
3. Removing the MD mechanism.

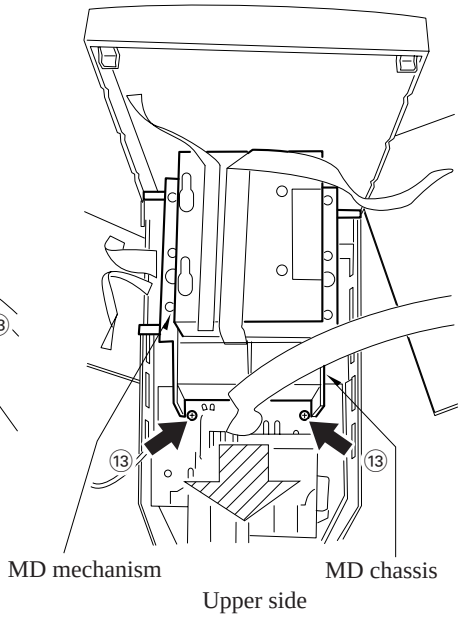
1) Remove the screw (⑪BVTT+4-6✕4) securing the transformer, and move the transformer to the rear.
2) Remove the screw (⑫BVT2+3-10✕1) that fixes the heat side to the holder, and remove the MAIN C.B.



3) Remove the screw (⑬BVT2+3-10✕4), and remove the MD mechanism together with the chassis.

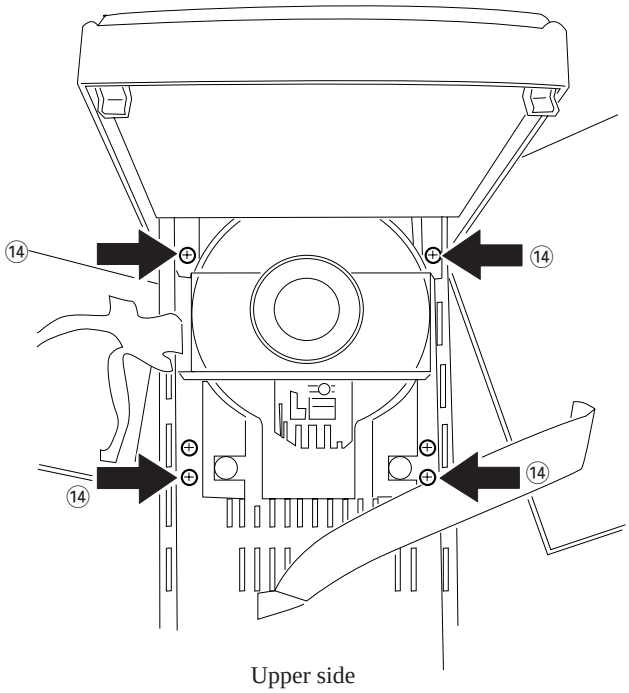






4. Removing the CD mechanism.

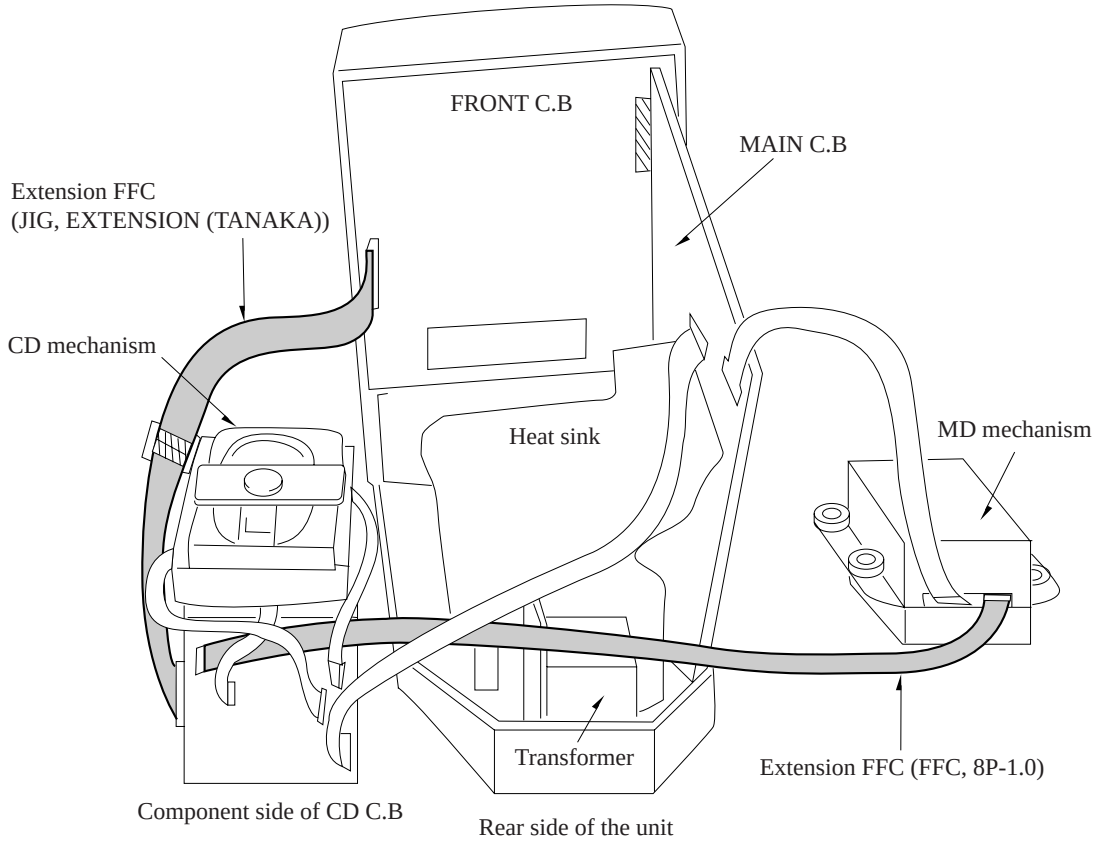
1) Remove the screw (⑭BVT2+3-6✕4), open the tray, remove the CD panel, and remove the CD mechanism.



SERVICE JIG AND TOOLS

After opening the board, use the following jig and tools as shown in the figure.

JIG. EX TENSION (TANAKA) SV-J00-019-010
FFC, 8P-1.0 ..... SV-J00-043-010



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-446-010		C-IC,LA9241ML
	87-A20-459-010		C-IC,LC78622ED
	87-A20-445-010		IC,BA5936
	87-070-289-040		IC,BU 2092F
	8Z-CL4-620-010		IC,LC87F65C8A
	87-A20-914-010		IC,SPS-442-1-F
	87-A20-455-010		IC,HA12211
	87-A20-355-010		IC,CXA1553P
	87-A21-111-040		C-IC,M62495FP
	87-A21-103-040		C-IC,MM1454XFBE
	87-017-915-080		IC,BU4094BCF
	87-A21-022-040		C-IC,BA3880FS
	87-A20-870-010		IC,GP1F37R
	87-A21-175-040		C-IC,TC74VHC14FT
	87-070-127-110		IC,LC72131 D
	87-A20-913-010		IC,LA1837NL
	87-A20-440-040		C-IC,BU1920FS
	87-A20-707-010		C-IC,CXA2523AR
	87-A20-708-010		C-IC,CXD2652AR
	87-A20-709-040		C-IC,BD7910FV
	87-ZG9-607-010		C-IC,CXP81952M-523R
	87-ZG9-606-040		C-IC,MN41V4400SJ-08
	87-A20-755-080		C-IC,AK93C45AF
	87-A20-710-040		C-IC,S-8110AMP
	87-A20-711-040		C-IC,BA5970FP
	87-A20-712-040		C-IC,BA6417F
	87-A21-110-040		C-IC,AK4519VF
	87-017-853-040		IC,NJM2100V
	87-A20-797-040		C-IC,NJU7221U30
	87-A20-798-040		C-IC,NJU7221U35
	87-A20-714-040		C-IC,NJM2370U33
TRANSISTOR			
	87-026-463-080		TR,2SA933S (0.3W)
	87-026-239-080		TR,DTC114TK (0.2W)
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-A30-268-040		C-TR,2SA1514K(S)
	87-A30-074-080		C-TR,RT1P 141C
	89-113-187-880		TRNSISTOR,2SA1318 (0.5W)
	87-A30-047-080		TR,CSD655E
	89-213-702-010		TR,2SB1370 (1.8W)
	87-026-245-080		TR,DTC114ES
	87-A30-198-080		TR,KTC3199GR
	87-026-610-080		TR,KTC3198GR
	87-A30-196-080		TR,2SC4115SRS
	87-A30-072-080		C-TR,RT1P 144C
	87-A30-073-080		C-TR,RT1N 141C
	87-A30-087-080		C-FET,2SK2158
	87-026-609-080		TR,KTA1266GR
	87-A30-190-080		TR,CC5551
	87-A30-215-010		TR,2SD2025
	87-A30-214-010		TR,2SB1344
	87-A30-106-070		C-TR,CMBT5551
	87-A30-105-080		C-TR,RT1P 441C
	87-A30-159-080		C-TR,KTA1298Y
	87-A30-084-080		TR,CSB1058B
	89-327-143-080		TR,2SC2714 (0.1W)
	87-026-297-080		TR,DTA144TK
	87-A30-071-080		C-TR,RT1N 144C
	87-A30-234-080		TR,CSC4115BC
	87-A30-072-080		C-TR,RT1P 144
	89-327-143-080		TR,2SC2714 (0.1W)
	87-A30-076-080		C-TR,2SC3052F<K>
	87-A30-074-080		C-TR,RT1P 141C
	87-A30-086-070		C-TR,CSD1306E
	89-505-434-540		C-FET,2SK543(4/5)
	87-026-423-080		C-TR RN2305
	89-115-884-080		CHIP -TRANSISTER 2SA1588Y
	89-341-164-080		CHIP-TRANSISTOR,2SC4116 Y
	87-026-412-080		C-TR RN1305
DIODE			
	87-A40-291-080		DIODE,1N4148 (CPT)
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-004-080		ZENER,MTZJ16A
	87-070-178-090		DIODE,1N5402-BD54
	87-070-274-080		DIODE,1N4003 SEM
	87-A40-345-080		ZENER,MTZJ10C
	87-017-083-080		ZENER,HZS4C2
	87-A40-312-080		ZENER,DZ33M
	87-A40-488-080		DIODE,1SS244
	87-A40-509-080		ZENER,MTZJ6.8C
	87-A40-293-080		ZENER,DZ2.7M
	87-001-731-080		ZENER,HZS6C2L
	87-A40-299-080		ZENER,DZ5.1M
	87-017-149-080		ZENER,HZS6A2L
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-270-080		C-DIODE,MC2838
	87-001-166-080		DIODE,1SS301
	87-A40-412-040		C-DIODE,SB05-05CP
MAIN C.B			
C61	87-010-260-080		CAP, ELECT 47-25V
C62	87-010-403-080		CAP, ELECT 3.3-50V
C63	87-010-197-080		CAP, CHIP 0.01 DM
C102	87-016-051-090		CAP,E 2200-35 SMG
C103	87-A10-479-080		CAP,CER 2200P-250 M E KH
C106	87-010-196-080		CHIP CAPACITOR,0.1-25
C107	87-010-196-080		CHIP CAPACITOR,0.1-25
C108	87-010-196-080		CHIP CAPACITOR,0.1-25
C109	87-010-196-080		CHIP CAPACITOR,0.1-25
C110	87-010-928-090		CAP,E 4700-25 SMG
C111	87-012-140-080		CAP 470P
C112	87-010-112-080		CAP, ELECT 100-16V
C113	87-010-247-080		CAP, ELECT 100-50V
C114	87-010-112-080		CAP, ELECT 100-16V
C115	87-010-235-080		CAP,E 470-16 SME
C151	87-010-196-080		CHIP CAPACITOR,0.1-25
C152	87-A11-233-090		CAP,E 4700-16 105 KMG
C153	87-010-196-080		CHIP CAPACITOR,0.1-25
C154	87-A10-105-080		CAP,E 1000-6.3 REA
C171	87-010-260-080		CAP, ELECT 47-25V
C172	87-010-260-080		CAP, ELECT 47-25V
C173	87-010-260-080		CAP, ELECT 47-25V
C174	87-010-260-080		CAP, ELECT 47-25V
C175	87-010-247-080		CAP, ELECT 100-50V
C176	87-010-247-080		CAP, ELECT 100-50V
C201	87-010-260-080		CAP, ELECT 47-25V
C202	87-010-260-080		CAP, ELECT 47-25V
C203	87-A10-946-080		C-CAP,S 220P-100 J CH
C204	87-A10-946-080		C-CAP,S 220P-100 J CH
C209	87-010-186-080		CAP,CHIP 4700P
C210	87-010-186-080		CAP,CHIP 4700P
C211	87-012-368-080		C-CAP,S 0.1-50 F
C212	87-012-368-080		C-CAP,S 0.1-50 F
C213	87-010-195-080		C-CAP,S 0.068-25 F
C214	87-015-837-080		C-CAP,0.068 F
C215	87-010-544-080		CAP, ELECT 0.1-50V
C216	87-010-544-080		CAP, ELECT 0.1-50V
C217	87-010-182-080		C-CAP,S 2200P-50 B
C218	87-010-182-080		C-CAP,S 2200P-50 B
C221	87-010-186-080		CAP,CHIP 4700P
C222	87-010-186-080		CAP,CHIP 4700P

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C223	87-010-403-080		CAP, ELECT 3.3-50V
C224	87-010-403-080		CAP, ELECT 3.3-50V
C265	87-010-546-080		CAP, ELECT 0.33-50V
C266	87-010-546-080		CAP, ELECT 0.33-50V
C267	87-010-380-080		CAP, ELECT 47-16V
C267	87-010-380-080		CAP, ELECT 47-16V
C277	87-010-197-080		CAP, CHIP 0.01 DM
C303	87-012-157-080		C-CAP,S 330P-50 CH
C304	87-012-157-080		C-CAP,S 330P-50 CH
C307	87-010-196-080		CHIP CAPACITOR,0.1-25
C311	87-010-198-080		CAP, CHIP 0.022
C312	87-010-198-080		CAP, CHIP 0.022
C315	87-010-181-080		CAP,CHIP S 1800P
C316	87-010-181-080		CAP,CHIP S 1800P
C317	87-012-142-080		CAP, S 0.33-16
C318	87-012-142-080		CAP, S 0.33-16
C319	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C320	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C321	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C322	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C324	87-010-260-080		CAP, ELECT 47-25V
C325	87-010-370-080		CAP,E 330-6.3 SME
C327	87-010-404-080		CAP, ELECT 4.7-50V
C328	87-010-404-080		CAP, ELECT 4.7-50V
C332	87-010-196-080		CHIP CAPACITOR,0.1-25
C335	87-010-401-080		CAP, ELECT 1-50V
C336	87-010-401-080		CAP, ELECT 1-50V
C337	87-010-196-080		CHIP CAPACITOR,0.1-25
C339	87-010-196-080		CHIP CAPACITOR,0.1-25
C340	87-010-196-080		CHIP CAPACITOR,0.1-25
C351	87-012-140-080		CAP 470P
C352	87-012-140-080		CAP 470P
C354	87-010-175-080		CAP 560P
C355	87-010-178-080		CHIP CAP 1000P
C356	87-010-260-080		CAP, ELECT 47-25V
C357	87-010-197-080		CAP, CHIP 0.01 DM
C358	87-010-183-080		C-CAP,S 2700P-50 B
C359	87-010-183-080		C-CAP,S 2700P-50 B
C360	87-010-183-080		C-CAP,S 2700P-50 B
C370	87-010-196-080		CHIP CAPACITOR,0.1-25
C371	87-010-179-080		CAP,CHIP S B1200P
C372	87-010-179-080		CAP,CHIP S B1200P
C373	87-010-179-080		CAP,CHIP S B1200P
C374	87-010-179-080		CAP,CHIP S B1200P
C375	87-010-545-080		CAP, ELECT 0.22-50V
C376	87-010-545-080		CAP, ELECT 0.22-50V
C378	87-018-209-080		CAP, CER 0.1-50V
C381	87-010-197-080		CAP, CHIP 0.01 DM
C382	87-010-318-080		C-CAP,S 47P-50 CH
C383	87-010-197-080		CAP, CHIP 0.01 DM
C384	87-010-402-080		CAP, ELECT 2.2-50V
C385	87-010-184-080		CHIP CAPACITOR 3300P(K)
C386	87-010-196-080		CHIP CAPACITOR,0.1-25
C388	87-010-154-080		CAP CHIP 10P
C399	87-010-265-080		CAP, ELECT 33-16V
C501	87-010-154-080		CAP CHIP 10P
C502	87-010-374-080		CAP, ELECT 47-10V
C503	87-010-374-080		CAP, ELECT 47-10V
C505	87-010-187-080		CAP CHIP S5600P
C506	87-010-187-080		CAP CHIP S5600P
C509	87-010-182-080		C-CAP,S 2200P-50 B
C510	87-010-182-080		C-CAP,S 2200P-50 B
C511	87-010-213-080		C-CAP,S 0.015-50 B
C512	87-010-213-080		C-CAP,S 0.015-50 B
C513	87-010-400-080		CAP, ELECT 0.47-50V
C514	87-010-400-080		CAP, ELECT 0.47-50V
C515	87-010-400-080		CAP, ELECT 0.47-50V
C516	87-010-400-080		CAP, ELECT 0.47-50V
C517	87-010-401-080		CAP, ELECT 1-50V
C518	87-010-401-080		CAP, ELECT 1-50V
C551	87-010-402-080		CAP, ELECT 2.2-50V
C552	87-010-402-080		CAP, ELECT 2.2-50V
C561	87-010-407-080		CAP, ELECT 33-50V
C562	87-010-407-080		CAP, ELECT 33-50V
C581	87-010-404-080		CAP, ELECT 4.7-50V
C582	87-010-404-080		CAP, ELECT 4.7-50V
C603	87-010-402-080		CAP, ELECT 2.2-50V
C604	87-010-402-080		CAP, ELECT 2.2-50V
C605	87-010-408-080		CAP, ELECT 47-50V
C607	87-010-405-080		CAP, ELECT 10-50V
C608	87-010-405-080		CAP, ELECT 10-50V
C609	87-010-196-080		CHIP CAPACITOR,0.1-25
C610	87-010-384-080		CAP, ELECT 100-25V
C611	87-010-197-080		CAP, CHIP 0.01 DM
C612	87-010-197-080		CAP, CHIP 0.01 DM
C620	87-010-380-080		CAP, ELECT 47-16V
C621	87-010-196-080		CHIP CAPACITOR,0.1-25
C622	87-010-322-080		C-CAP,S 100P-50 CH
C631	87-010-400-080		CAP, ELECT 0.47-50V
C653	87-010-404-080		CAP, ELECT 4.7-50V
C654	87-010-404-080		CAP, ELECT 4.7-50V
C655	87-010-404-080		CAP, ELECT 4.7-50V
C656	87-010-404-080		CAP, ELECT 4.7-50V
C657	87-010-188-080		CAP,CHIP 6800P
C658	87-010-188-080		CAP,CHIP 6800P
C659	87-012-140-080		CAP 470P
C660	87-012-140-080		CAP 470P
C662	87-010-408-080		CAP, ELECT 47-50V
C663	87-010-178-080		CHIP CAP 1000P
C664	87-010-178-080		CHIP CAP 1000P
C665	87-010-197-080		CAP, CHIP 0.01 DM
C666	87-010-197-080		CAP, CHIP 0.01 DM
C667	87-010-195-080		C-CAP,S 0.068-25 F
C668	87-010-195-080		C-CAP,S 0.068-25 F
C669	87-010-408-080		CAP, ELECT 47-50V
C670	87-010-196-080		CHIP CAPACITOR,0.1-25
C671	87-010-404-080		CAP, ELECT 4.7-50V
C672	87-010-404-080		CAP, ELECT 4.7-50V
C675	87-010-401-080		CAP, ELECT 1-50V
C676	87-010-401-080		CAP, ELECT 1-50V
C901	87-010-196-080		CHIP CAPACITOR,0.1-25
C902	87-010-178-080		CHIP CAP 1000P
C903	87-010-178-080		CHIP CAP 1000P
C904	87-010-196-080		CHIP CAPACITOR,0.1-25
C905	87-012-140-080		CAP 470P
C906	87-010-196-080		CHIP CAPACITOR,0.1-25
C951	87-010-401-080		CAP, ELECT 1-50V
C952	87-010-263-080		CAP, ELECT 100-10V
C953	87-010-380-080		CAP, ELECT 47-16V
C960	87-010-405-080		CAP, ELECT 10-50V
CN101	87-A60-111-010		CONN,5P V S2M 5W
CN501	87-099-719-010		CONN,30P TYK-B(X)
CN502	87-A60-423-010		CONN,14P V TOC-B
CN503	87-A60-133-010		CONN,8P V FE
CN702	87-A60-189-010		CONN,16P V TUC-P16P-B1
CN901	8Z-CL4-656-010		CONN ASSY,2P V DTL SHLD
J201	87-A60-420-010		JACK,3.5 ST (MSC)
J202	87-099-801-010		JACK,PIN 1P BLK
J203	87-A60-659-010		TERMINAL,SPKR 4P HSP-134V-05Z
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
L301	87-A50-049-010		COIL,TRAP 85K(COI)
L302	87-A50-049-010		COIL,TRAP 85K(COI)
L351	87-007-342-010		COIL,OSC 85K BIAS
PN301	87-A60-112-010		CONN,7P V S2M-7W
⚠PR103	87-026-681-080		PROTECTOR,5A 60V 491
⚠PR104	87-026-681-080		PROTECTOR,5A 60V 491
⚠PR151	87-A90-094-080		PROTECTOR,4A 491SERIES 60V
⚠PR152	87-A90-094-080		PROTECTOR,4A 491SERIES 60V
R215	87-A00-258-080		RES,M/F 0.22-1W J
R216	87-A00-258-080		RES,M/F 0.22-1W J
R217	87-A00-258-080		RES,M/F 0.22-1W J
R218	87-A00-258-080		RES,M/F 0.22-1W J
R219	87-A00-258-080		RES,M/F 0.22-1W J
R220	87-A00-258-080		RES,M/F 0.22-1W J
R908	87-008-372-080		FILTER, EMI BL OIRNI
SFR303	87-A90-557-080		SFR,33K H HOKU
SFR304	87-A90-557-080		SFR,33K H HOKU
SFR305	87-024-436-080		SFR,47K RH063EC
SFR306	87-024-436-080		SFR,47K RH063EC

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
SFR351	87-024-436-080		SFR,47K RH063EC
SFR352	87-024-436-080		SFR,47K RH063EC
TH51	87-A91-042-080		C-THMS,100K 55001
TH52	87-A91-042-080		C-THMS,100K 55001
W101	8Z-CL4-658-010		F-CABLE,10P 2.5 300MM
CD C.B			
C1	87-010-403-080		CAP, ELECT 3.3-50V
C2	87-010-197-080		CAP, CHIP 0.01 DM
C3	87-010-263-080		CAP, ELECT 100-10V
C4	87-010-248-080		CAP, ELECT 220-10V
C5	87-010-197-080		CAP, CHIP 0.01 DM
C6	87-010-374-080		CAP, ELECT 47-10V
C7	87-012-349-080		C-CAP,S 1000P-50 CH
C8	87-010-198-080		CAP, CHIP 0.022
C9	87-010-248-080		CAP, ELECT 220-10V
C10	87-010-263-080		CAP, ELECT 100-10V
C12	87-010-401-080		CAP, ELECT 1-50V
C13	87-010-193-080		CHIP CAPACITOR,0.033
C14	87-010-405-080		CAP, ELECT 10-50V
C17	87-012-157-080		C-CAP,S 330P-50 CH
C18	87-010-213-080		C-CAP,S 0.015-50 B
C20	87-010-193-080		CHIP CAPACITOR,0.033
C22	87-010-183-080		C-CAP,S 2700P-50 B
C23	87-010-956-080		CHIP-CAP,S 0.068-25B
C25	87-010-994-080		C-CAP,S 680P-50 CH
C29	87-010-186-080		CAP,CHIP 4700P
C30	87-012-156-080		C-CAP,S 220P-50 CH
C31	87-010-400-080		CAP, ELECT 0.47-50V
C32	87-010-374-080		CAP, ELECT 47-10V
C33	87-010-401-080		CAP, ELECT 1-50V
C34	87-010-184-080		CHIP CAPACITOR 3300P(K)
C35	87-010-197-080		CAP, CHIP 0.01 DM
C36	87-010-374-080		CAP, ELECT 47-10V
C37	87-010-404-080		CAP, ELECT 4.7-50V
C38	87-010-196-080		CHIP CAPACITOR,0.1-25
C40	87-010-145-080		C-CAP,S 1P-50 CH
C42	87-010-312-080		C-CAP,S 15P-50 CH
C45	87-010-196-080		CHIP CAPACITOR,0.1-25
C46	87-010-196-080		CHIP CAPACITOR,0.1-25
C47	87-010-196-080		CHIP CAPACITOR,0.1-25
C48	87-010-315-080		C-CAP,S 27P-50 CH
C50	87-012-140-080		CAP 470P
C51	87-012-156-080		C-CAP,S 220P-50 CH
C52	87-012-140-080		CAP 470P
C53	87-010-322-080		C-CAP,S 100P-50 CH
C54	87-012-153-080		C-CAP,S 120P-50 CH
C55	87-010-263-080		CAP, ELECT 100-10V
C57	87-010-316-080		C-CAP,S 33P-50 CH
C58	87-010-316-080		C-CAP,S 33P-50 CH
C59	87-010-263-080		CAP, ELECT 100-10V
C60	87-010-196-080		CHIP CAPACITOR,0.1-25
C61	87-010-196-080		CHIP CAPACITOR,0.1-25
C62	87-A10-373-080		CAP,E 220-6.3 M SSL
C65	87-010-404-080		CAP, ELECT 4.7-50V
C66	87-010-196-080		CHIP CAPACITOR,0.1-25
C67	87-010-263-080		CAP, ELECT 100-10V
C69	87-012-154-080		C-CAP,S 150P-50 CH
C75	87-010-197-080		CAP, CHIP 0.01 DM
C76	87-A10-102-080		CAP,E 1000-10 REA
C77	87-010-197-080		CAP, CHIP 0.01 DM
C78	87-010-221-080		CAP, ELECT 470-10V
C79	87-010-263-080		CAP, ELECT 100-10V
C80	87-010-197-080		CAP, CHIP 0.01 DM
C81	87-010-405-080		CAP, ELECT 10-50V
C82	87-010-405-080		CAP, ELECT 10-50V
C83	87-010-181-080		CAP,CHIP S 1800P
C84	87-010-181-080		CAP,CHIP S 1800P
C90	87-010-196-080		CHIP CAPACITOR,0.1-25
C91	87-010-408-080		CAP, ELECT 47-50V
C92	87-010-382-080		CAP, ELECT 22-25V
C93	87-010-197-080		CAP, CHIP 0.01 DM
C94	87-010-197-080		CAP, CHIP 0.01 DM
C95	87-010-197-080		CAP, CHIP 0.01 DM

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C101	87-010-322-080		C-CAP,S 100P-50 CH
C102	87-010-322-080		C-CAP,S 100P-50 CH
C103	87-010-322-080		C-CAP,S 100P-50 CH
C104	87-010-322-080		C-CAP,S 100P-50 CH
C105	87-010-322-080		C-CAP,S 100P-50 CH
C110	87-010-196-080		CHIP CAPACITOR,0.1-25
CN1	87-A60-424-010		CONN,16P V TOC-B
CN2	87-A60-131-010		CONN,6P V FE
CN3	87-A60-130-010		CONN,5P V FE
CN4	87-099-719-010		CONN,30P TYK-B(X)
CN5	87-A60-133-010		CONN,8P V FE
CN6	87-A60-422-010		CONN,8P V TOC-B
CNA1	87-A60-109-010		CONN,2P V S2M-2W
L1	87-003-102-080		COIL, 10UH
L4	87-003-152-080		COIL, 100UH
L5	87-003-152-080		COIL, 100UH
SFR130	87-024-437-080		SFR100K,RH063EC
X1	87-A70-046-010		VIB,XTAL 16.934MHZ
FRONT C.B			
C131	87-010-402-040		CAP,E 2.2-50 SME
C132	87-010-400-040		CAP,E 0.47-50
C151	87-010-196-080		CHIP CAPACITOR,0.1-25
C152	87-010-322-080		C-CAP,S 100P-50 CH
C201	87-012-145-080		CAP, CHIP S 270P CH
C203	87-018-149-080		CAP,TC-U 15P-50 CH
C204	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C205	87-010-196-080		CHIP CAPACITOR,0.1-25
C206	87-018-209-080		CAP, CER 0.1-50V
C207	87-018-209-080		CAP, CER 0.1-50V
C231	87-010-405-040		CAP,E 10-50
C232	87-010-178-080		CHIP CAP 1000P
C241	87-010-400-040		CAP,E 0.47-50
C242	87-A10-189-040		CAP,E 220-10
C243	87-010-196-080		CHIP CAPACITOR,0.1-25
C245	87-010-378-040		CAP,E 10-16
C246	87-010-196-080		CHIP CAPACITOR,0.1-25
C247	87-010-194-080		CAP, CHIP 0.047
C249	87-018-208-080		CAP 0.047-50F
C250	87-010-198-080		CAP, CHIP 0.022
C251	87-010-263-040		CAP,E 100-10
C351	87-010-197-080		CAP, CHIP 0.01 DM
C352	87-010-197-080		CAP, CHIP 0.01 DM
C353	87-010-197-080		CAP, CHIP 0.01 DM
C354	87-010-197-080		CAP, CHIP 0.01 DM
C371	87-010-421-040		CAP,E 4.7-50 5L
C372	87-010-421-040		CAP,E 4.7-50 5L
C373	87-010-408-040		CAP,E 47-50 SME
C501	87-010-196-080		CHIP CAPACITOR,0.1-25
CN101	87-099-720-010		CONN,30P TYK-B(P)
CN102	87-099-720-010		CONN,30P TYK-B(P)
CNA401	88-802-092-420		CONN ASSY,9P
D153	87-A40-568-010		LED,L-13HD RED
D154	87-001-161-080		LED SEL2410E
D155	87-001-161-080		LED SEL2410E
D156	87-001-161-080		LED SEL2410E
D157	87-001-161-080		LED SEL2410E
D158	87-001-161-080		LED SEL2410E
D161	87-A40-276-080		LED,SML1816W UMB/GRN
D163	87-A40-276-080		LED,SML1816W UMB/GRN
D165	87-A40-276-080		LED,SML1816W UMB/GRN
D167	87-A40-276-080		LED,SML1816W UMB/GRN
D169	87-A40-276-080		LED,SML1816W UMB/GRN
FL301	8Z-CL4-621-010		FL,13-ST-36GNK
L201	87-A50-052-010		COIL,CLOCK 5.76MHZ T1
S301	87-A90-696-080		SW,TACT TS2103-03-430
S302	87-A90-696-080		SW,TACT TS2103-03-430
S303	87-A90-696-080		SW,TACT TS2103-03-430
S304	87-A90-696-080		SW,TACT TS2103-03-430
S305	87-A90-696-080		SW,TACT TS2103-03-430
S306	87-A90-696-080		SW,TACT TS2103-03-430
S307	87-A90-696-080		SW,TACT TS2103-03-430
S308	87-A90-696-080		SW,TACT TS2103-03-430
S309	87-A90-696-080		SW,TACT TS2103-03-430

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
S310	87-A90-696-080		SW,TACT TS2103-03-430
S311	87-A90-696-080		SW,TACT TS2103-03-430
S312	87-A90-696-080		SW,TACT TS2103-03-430
S321	87-A90-696-080		SW,TACT TS2103-03-430
S322	87-A90-696-080		SW,TACT TS2103-03-430
S323	87-A90-696-080		SW,TACT TS2103-03-430
S324	87-A90-696-080		SW,TACT TS2103-03-430
S325	87-A90-696-080		SW,TACT TS2103-03-430
S326	87-A90-696-080		SW,TACT TS2103-03-430
S327	87-A90-696-080		SW,TACT TS2103-03-430
S328	87-A90-696-080		SW,TACT TS2103-03-430
S329	87-A90-696-080		SW,TACT TS2103-03-430
S330	87-A90-696-080		SW,TACT TS2103-03-430
S331	87-A90-696-080		SW,TACT TS2103-03-430
S351	87-A90-085-010		SW,RTRY EC16B 24204
S352	87-A90-535-010		SW,RTRY EC16B24304
LED C.B			
D181	87-001-161-080		LED SEL2410E
D182	87-002-738-080		LED,SEL2210R TP6
D183	87-001-161-080		LED SEL2410E
TUNER C.B			
C701	87-010-381-080		CAP, ELECT 330-16V
C702	87-010-404-080		CAP, ELECT 4.7-50V
C703	87-012-286-080		CAP, U 0.01-25
C704	87-012-286-080		CAP, U 0.01-25
C709	87-012-195-080		C-CAP,U 100P-50CH
C711	87-010-260-080		CAP, ELECT 47-25V
C712	87-010-831-080		C-CAP,U,0.1-16F
C713	87-012-286-080		CAP, U 0.01-25
C714	87-012-286-080		CAP, U 0.01-25
C715	87-012-195-080		C-CAP,U 100P-50CH
C717	87-012-286-080		CAP, U 0.01-25
C719	87-012-286-080		CAP, U 0.01-25
C720	87-012-195-080		C-CAP,U 100P-50CH
C721	87-012-176-080		CAP 15P
C722	87-012-176-080		CAP 15P
C723	87-012-274-080		CHIP CAP,U 1000P-50B
C725	87-018-131-080		CAP, CER 1000P-50V
C727	87-010-196-080		CHIP CAPACITOR,0.1-25
C728	87-010-248-080		CAP, ELECT 220-10V
C729	87-012-274-080		CHIP CAP,U 1000P-50B
C731	87-012-286-080		CAP, U 0.01-25
C733	87-012-280-080		CAP, U 3300P-50
C734	87-012-280-080		CAP, U 3300P-50
C752	87-012-282-080		CAP, U 4700P-50
C753	87-012-195-080		C-CAP,U 100P-50CH
C755	87-012-286-080		CAP, U 0.01-25
C756	87-012-286-080		CAP, U 0.01-25
C757	87-012-188-080		C-CAP,U 47P-50 CH
C758	87-012-167-080		C-CAP,U 5P-50 CH
C761	87-010-196-080		CHIP CAPACITOR,0.1-25
C762	87-012-286-080		CAP, U 0.01-25
C763	87-010-829-080		CAP, U 0.047-16
C765	87-012-286-080		CAP, U 0.01-25
C766	87-010-197-080		CAP, CHIP 0.01 DM
C769	87-010-260-080		CAP, ELECT 47-25V
C770	87-010-829-080		CAP, U 0.047-16
C771	87-010-383-080		CAP, ELECT 33-25V
C772	87-010-829-080		CAP, U 0.047-16
C773	87-010-196-080		CHIP CAPACITOR,0.1-25
C774	87-010-263-080		CAP, ELECT 100-10V
C775	87-010-404-080		CAP, ELECT 4.7-50V
C776	87-012-286-080		CAP, U 0.01-25
C777	87-010-493-080		CAP,E 0.47-50 GAS
C778	87-010-401-080		CAP, ELECT 1-50V
C779	87-010-401-080		CAP, ELECT 1-50V
C780	87-010-196-080		CHIP CAPACITOR,0.1-25
C781	87-010-405-080		CAP, ELECT 10-50V
C782	87-010-405-080		CAP, ELECT 10-50V
C783	87-012-286-080		CAP, U 0.01-25
C784	87-012-286-080		CAP, U 0.01-25
C785	87-010-405-080		CAP, ELECT 10-50V
C786	87-010-405-080		CAP, ELECT 10-50V
C787	87-012-275-080		C-CAP,U 1200P-50 B
C788	87-012-275-080		C-CAP,U 1200P-50 B
C789	87-012-275-080		C-CAP,U 1200P-50 B
C790	87-012-275-080		C-CAP,U 1200P-50 B
C791	87-010-405-080		CAP, ELECT 10-50V
C793	87-012-273-080		C-CAP,U 820P-50 B
C794	87-010-406-080		CAP, ELECT 22-50
C795	87-010-596-080		CAP, S 0.047-16
C796	87-010-403-080		CAP, ELECT 3.3-50V
C797	87-012-276-080		CAP, CHIP SS 1500 PBK
C798	87-012-276-080		CAP, CHIP SS 1500 PBK
C799	87-010-829-080		CAP, U 0.047-16
C814	87-012-286-080		CAP, U 0.01-25
C820	87-010-260-080		CAP, ELECT 47-25V
C821	87-012-286-080		CAP, U 0.01-25
C822	87-012-286-080		CAP, U 0.01-25
C823	87-012-286-080		CAP, U 0.01-25
C859	87-012-286-080		CAP, U 0.01-25<K>
C861	87-012-199-080		CAP 220P<K>
C862	87-012-199-080		CAP 220P<K>
C863	87-012-270-080		CAP, U 470P-50<K>
C864	87-010-405-080		CAP, ELECT 10-50V<K>
C865	87-010-196-080		CHIP CAPACITOR,0.1-25<K>
C866	87-010-405-080		CAP, ELECT 10-50V<K>
C867	87-012-286-080		CAP, U 0.01-25<K>
C868	87-012-184-080		C-CAP,U 33P-50 CH<K>
C869	87-012-180-080		C-CAP,U 22P-50 CH<K>
C940	87-012-286-080		CAP, U 0.01-25
C942	87-012-168-080		C-CAP,U 6P-50 CH
C947	87-012-286-080		CAP, U 0.01-25
C949	87-A10-039-080		C-CAP,U 470P-50 J CH
C952	87-012-286-080		CAP, U 0.01-25
C958	87-010-197-080		CAP, CHIP 0.01 DM
C959	87-010-831-080		C-CAP,U,0.1-16F
C962	87-010-401-080		CAP, ELECT 1-50V
CF801	87-008-423-010		CERAMIC FILTER, SFE10.7
CF802	82-785-747-010		CF MS2 GHY R
CN701	87-A60-700-010		CONN,13P H GRY TUC-P13X-C1<E>
CN701	87-A60-650-010		CONN,16P H GRY TUC-P16X-C1<K>
FFE801	A8-6ZA-191-130		6ZA-1 FEENM
J801	87-033-241-010		TERMINAL,ANT AJ-2039
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	87-A91-110-010		FLTR,PCFJZH-450 (TOK)
L781	87-005-847-080		COIL,2.2UH(CECS)
L791	87-A50-027-010		COIL,1 POLE MPX(TOK)
L792	87-A50-027-010		COIL,1 POLE MPX(TOK)
L832	87-005-847-080		COIL,2.2UH(CECS)
L851	87-005-847-080		COIL,2.2UH(CECS)<K>
L941	87-A50-020-010		COIL,ANT LW(COI)
L942	87-A50-019-010		COIL,OSC LW(COI)
L981	8Z-ZA1-665-010		COIL,AM PACK 2(TOK)
TC942	87-011-164-010		CAPACITOR,TRIMMER 30P
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
X851	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309<K>
MD C.B			
C100	87-016-296-080		C-CAP,TN 22-4SV(A)
C101	87-016-296-080		C-CAP,TN 22-4SV(A)
C102	87-012-286-080		CAP, U 0.01-25
C103	87-010-787-080		CAP, U 0.022-25
C104	87-010-662-080		C-CAP,E 22-6.3
C105	87-010-831-080		C-CAP,U,0.1-16F
C106	87-016-462-080		C-CAP,S 1-16 F
C107	87-012-195-080		C-CAP,U 100P-50CH
C108	87-012-274-080		CHIP CAP,U 1000P-50B
C109	87-016-436-080		C-CAP,TN 47-4(B2)
C111	87-016-296-080		C-CAP,TN 22-4SV(A)
C112	87-012-286-080		CAP, U 0.01-25
C113	87-012-284-080		CAP, U 6800P-50
C114	87-010-828-080		CHIP CAPACITOR,U 0.033-25F
C115	87-A10-369-080		C-CAP,S 0.47-16 K B

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C116	87-012-282-080		CAP, U 4700P-50
C117	87-016-462-080		C-CAP,S 1-16 F
C118	87-012-282-080		CAP, U 4700P-50
C119	87-016-491-080		C-CAP,S 0.22-16 FZ
C120	87-010-787-080		CAP, U 0.022-25
C121	87-012-286-080		CAP, U 0.01-25
C122	87-010-829-080		CAP, U 0.047-16
C123	87-012-286-080		CAP, U 0.01-25
C124	87-010-662-080		C-CAP,E 22-6.3
C125	87-010-662-080		C-CAP,E 22-6.3
C126	87-010-831-080		C-CAP,U,0.1-16F
C201	87-010-831-080		C-CAP,U,0.1-16F
C202	87-010-831-080		C-CAP,U,0.1-16F
C203	87-010-785-080		C-CAP,U0.015-25BK
C204	87-016-461-080		C-CAP,S 0.47-16F
C205	87-010-831-080		C-CAP,U,0.1-16F
C206	87-012-270-080		CAP, U 470P-50
C207	87-016-461-080		C-CAP,S 0.47-16F
C208	87-012-286-080		CAP, U 0.01-25
C209	87-010-831-080		C-CAP,U,0.1-16F
C210	87-012-172-080		CAPACITOR CHIP U 10P CH
C211	87-012-172-080		CAPACITOR CHIP U 10P CH
C212	87-012-195-080		C-CAP,U 100P-50CH
C213	87-010-662-080		C-CAP,E 22-6.3
C214	87-012-274-080		CHIP CAP,U 1000P-50B
C217	87-012-188-080		C-CAP,U 47P-50 CH
C218	87-012-172-080		CAPACITOR CHIP U 10P CH
C219	87-016-296-080		C-CAP,TN 22-4SV(A)
C220	87-010-662-080		C-CAP,E 22-6.3
C221	87-010-831-080		C-CAP,U,0.1-16F
C222	87-016-444-080		C-CAP,TN 47-10 F95E
C223	87-010-831-080		C-CAP,U,0.1-16F
C224	87-A10-685-080		C-CAP,S 470P-100 J CH
C225	87-010-831-080		C-CAP,U,0.1-16F
C226	87-010-831-080		C-CAP,U,0.1-16F
C227	87-012-274-080		CHIP CAP,U 1000P-50B
C228	87-012-274-080		CHIP CAP,U 1000P-50B
C229	87-012-274-080		CHIP CAP,U 1000P-50B
C232	87-012-274-080		CHIP CAP,U 1000P-50B
C233	87-012-274-080		CHIP CAP,U 1000P-50B
C236	87-010-831-080		C-CAP,U,0.1-16F
C300	87-010-831-080		C-CAP,U,0.1-16F
C301	87-010-831-080		C-CAP,U,0.1-16F
C302	87-010-831-080		C-CAP,U,0.1-16F
C305	87-016-462-080		C-CAP,S 1-16 F
C307	87-010-831-080		C-CAP,U,0.1-16F
C308	87-010-831-080		C-CAP,U,0.1-16F
C311	87-010-662-080		C-CAP,E 22-6.3
C312	87-012-195-080		C-CAP,U 100P-50CH
C321	87-012-274-080		CHIP CAP,U 1000P-50B
C322	87-012-274-080		CHIP CAP,U 1000P-50B
C323	87-012-274-080		CHIP CAP,U 1000P-50B
C324	87-012-274-080		CHIP CAP,U 1000P-50B
C325	87-012-274-080		CHIP CAP,U 1000P-50B
C400	87-010-831-080		C-CAP,U,0.1-16F
C401	87-010-831-080		C-CAP,U,0.1-16F
C402	87-010-831-080		C-CAP,U,0.1-16F
C403	87-010-831-080		C-CAP,U,0.1-16F
C404	87-010-831-080		C-CAP,U,0.1-16F
C405	87-010-661-080		C-CAP,E 10-16
C406	87-010-779-080		C-CAP,E 100-6.3
C407	87-012-197-080		C-CAP,U 150P-50 CH
C408	87-012-197-080		C-CAP,U 150P-50 CH
C411	87-012-271-080		CAP, U 560P-50
C412	87-012-271-080		CAP, U 560P-50
C413	87-012-197-080		C-CAP,U 150P-50 CH
C414	87-012-197-080		C-CAP,U 150P-50 CH
C417	87-012-268-080		C-CAP,U 330P-50 B
C418	87-012-268-080		C-CAP,U 330P-50 B
C423	87-012-286-080		CAP, U 0.01-25
C424	87-012-286-080		CAP, U 0.01-25
C429	87-012-286-080		CAP, U 0.01-25
C430	87-012-286-080		CAP, U 0.01-25
C431	87-010-779-080		C-CAP,E 100-6.3
C434	87-010-831-080		C-CAP,U,0.1-16F

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C501	87-010-831-080		C-CAP,U,0.1-16F
C502	87-010-831-080		C-CAP,U,0.1-16F
C503	87-010-662-080		C-CAP,E 22-6.3
C504	87-010-831-080		C-CAP,U,0.1-16F
C505	87-010-662-080		C-CAP,E 22-6.3
C506	87-010-831-080		C-CAP,U,0.1-16F
C506	87-010-831-080		C-CAP,U,0.1-16F
C507	87-010-661-080		C-CAP,E 10-16
C508	87-010-831-080		C-CAP,U,0.1-16F
C509	87-010-662-080		C-CAP,E 22-6.3
C510	87-010-831-080		C-CAP,U,0.1-16F
C510	87-010-831-080		C-CAP,U,0.1-16F
C511	87-010-661-080		C-CAP,E 10-16
C513	87-010-661-080		C-CAP,E 10-16
C514	87-010-661-080		C-CAP,E 10-16
C515	87-012-337-080		C-CAP,U 56P-50 CH
C516	87-012-337-080		C-CAP,U 56P-50 CH
C517	87-012-278-080		C-CAP,U 2200P-50 B
C518	87-012-278-080		C-CAP,U 2200P-50 B
C519	87-010-831-080		C-CAP,U,0.1-16F
C520	87-010-661-080		C-CAP,E 10-16
C521	87-010-831-080		C-CAP,U,0.1-16F
C522	87-010-661-080		C-CAP,E 10-16
C523	87-010-662-080		C-CAP,E 22-6.3
C524	87-010-662-080		C-CAP,E 22-6.3
C525	87-012-274-080		CHIP CAP,U 1000P-50B
C526	87-012-274-080		CHIP CAP,U 1000P-50B
C527	87-010-661-080		C-CAP,E 10-16
C528	87-010-661-080		C-CAP,E 10-16
C530	87-010-831-080		C-CAP,U,0.1-16F
C531	87-010-831-080		C-CAP,U,0.1-16F
C600	87-010-662-080		C-CAP,E 22-6.3
C601	87-010-779-080		C-CAP,E 100-6.3
C602	87-010-779-080		C-CAP,E 100-6.3
C603	87-010-662-080		C-CAP,E 22-6.3
C604	87-010-779-080		C-CAP,E 100-6.3
C605	87-012-286-080		CAP, U 0.01-25
C607	87-010-831-080		C-CAP,U,0.1-16F
C607	87-010-831-080		C-CAP,U,0.1-16F
C608	87-010-831-080		C-CAP,U,0.1-16F
CN400	87-A60-027-080		C-CONN,8P H WHT
CN401	87-A60-062-010		CONN,05P V 9604S-05C
FB501	87-A90-828-080		C-F-BEAD, BK1608LM182
L100	87-A50-117-080		C-COIL,10UHLQH3C
L101	87-A50-012-080		C-COIL,100UH LQH3C
L102	87-A50-117-080		C-COIL,10UHLQH3C
L103	87-A50-117-080		C-COIL,10UHLQH3C
L201	87-A50-117-080		C-COIL,10UHLQH3C
L202	87-A50-117-080		C-COIL,10UHLQH3C
L203	87-A50-116-080		C-COIL,4.7UHLQH3C
L301	87-A50-117-080		C-COIL,10UHLQH3C
L501	87-A50-116-080		C-COIL,4.7UHLQH3C
L502	87-A50-116-080		C-COIL,4.7UHLQH3C
L503	87-A50-116-080		C-COIL,4.7UHLQH3C
L504	87-005-774-080		C-COIL,4BLH
L505	87-005-774-080		C-COIL,4BLH
L611	87-A50-163-080		C-COIL,ZBFS5101-PT
L612	87-005-512-080		C-COIL,BLM21A05
L613	87-005-512-080		C-COIL,BLM21A05
L614	87-A50-163-080		C-COIL,ZBFS5101-PT
L615	87-A90-034-080		C-FLTR,EMI BLM41P750
L616	87-A50-163-080		C-COIL,ZBFS5101-PT
R423	87-025-564-080		C-RES,U M/F 47K D
R424	87-025-564-080		C-RES,U M/F 47K D
R425	87-022-583-080		C-RES,U M/F 12K D
R426	87-022-583-080		C-RES,U M/F 12K D
X200	87-A70-105-080		C-VIB,XTAL 22.5792MHZ SMD-49
X301	87-A70-100-080		C-VIB,CER 12.0MHZ PBRC-BR-A

LOAD C.B

M450	87-A90-672-010		MOT,M25E-4
SW451	87-A90-673-010		SW,MICRO ESE11SH1C
SW452	87-A90-117-010		SW,PUSH 1-1-1 MPU103

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
MECHA C.B			
SW400	87-A90-611-010		SW,PUSH 3-2-2 MPU20300MLB0
SW401	87-A90-612-010		SW,PUSH 2-1-1 MPU10371MLB1
DECK C.B			
SFR1	87-024-581-010		SFR,3.3K DIA 6H KOA
SOL2	82-ZM1-618-310		SOL ASSY,27
SW2	87-036-110-010		SW,PUSH SPPB 62
SW3	87-036-110-010		SW,PUSH SPPB 62
SW4	87-036-110-010		SW,PUSH SPPB 62
SW5	87-036-110-010		SW,PUSH SPPB 62
SW6	87-A90-248-010		SW,MICRO ESE11SH
RELAY C.B			
CON301	88-CE2-655-010		CONN ASSY,7P V RPH
DRIVE C.B			
M20	87-045-358-019		MOT,RF-310TA 43
M21	87-045-356-019		MOT,RF-310TA 30
SW1	87-A90-042-019		SW,LEAF MSW 17310 MVPO

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
CD MOTOR C.B			
M1	87-045-305-019		MOTOR, RF-500TB
SW1	87-036-110-019		SW,PUSH SPPB 62
SW2	87-036-110-019		SW,PUSH SPPB 62
AC C.B			
C101	87-010-387-080		CAP,E 470-25 SME
C103	87-016-051-090		CAP,E 2200-35 SMG
C105	87-010-403-080		CAP, ELECT 3.3-50V
CN102	87-A60-109-010		CONN,2P V S2M-2W
⚠RY101	87-A90-976-010		RELAY,AC12V SDT-S-112LMR
T101	87-A60-317-010		TERMINAL, 1P MSC
T102	87-A60-317-010		TERMINAL, 1P MSC
PT C.B			
⚠PT102	8Z-NF8-662-010		PT,SUB ZNF-8(E)

- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding

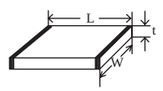
8 8 − □ □ □ □ □ □

A
抵抗部品コード
Resistor Code

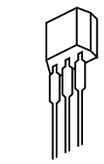
桁表示
Figure

抵抗値
Value of resistor

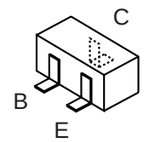
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



2SA933
DTC114ES



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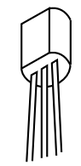
2SA1514
2SC2714
2SC3052
CMBT5551
DTA144TK

DTC114TK
KTA1298Y
RT1P141C
RT1P144C
RT1P441C



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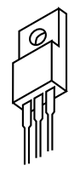
KTC3198GR



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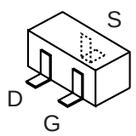
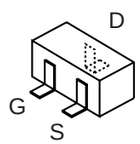
2SB1370
2SC4115
2SD2025
KTC3199GR

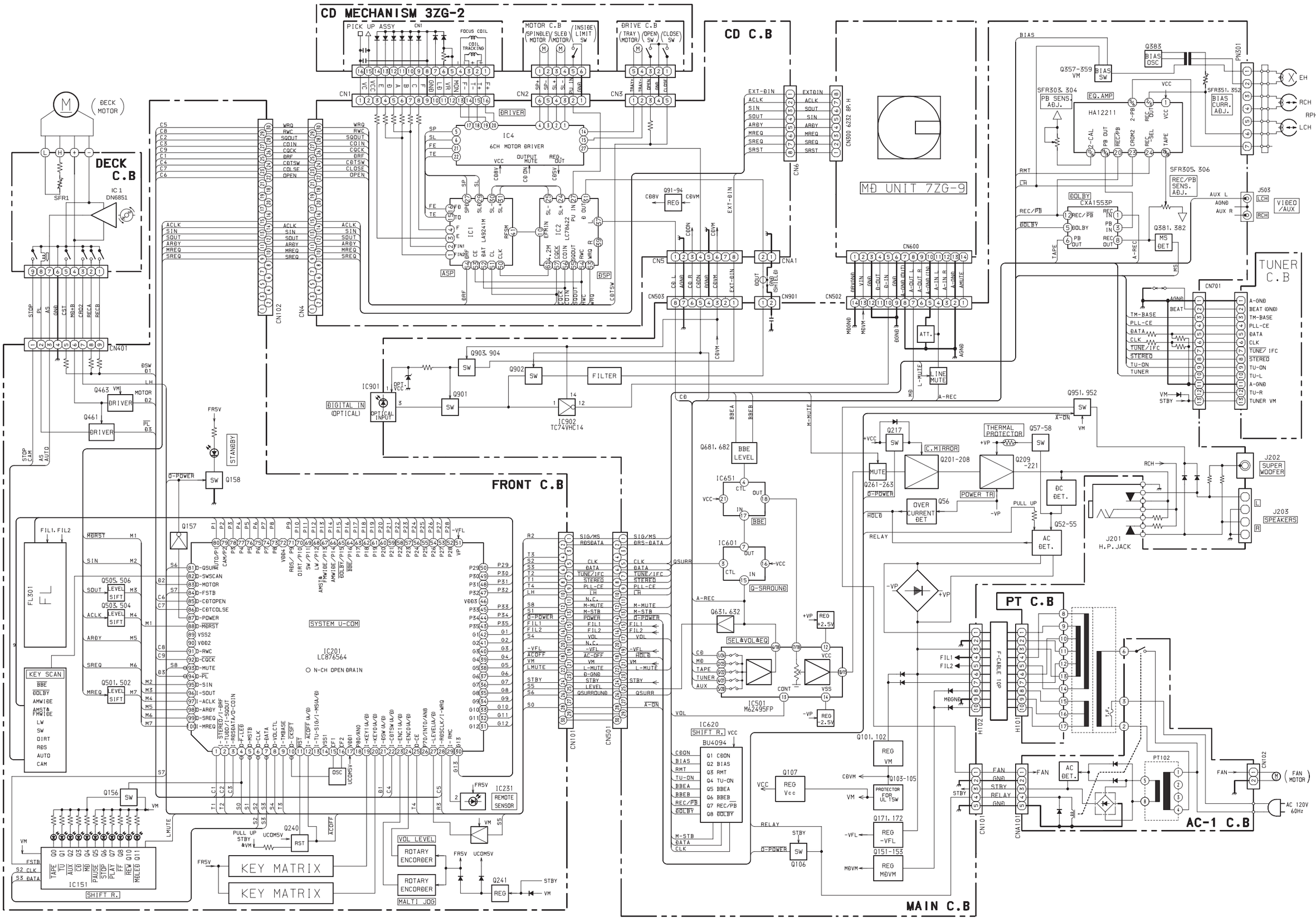


2SJ461-T1



2SK2158

BLOCK DIAGRAM-1 (MAIN)



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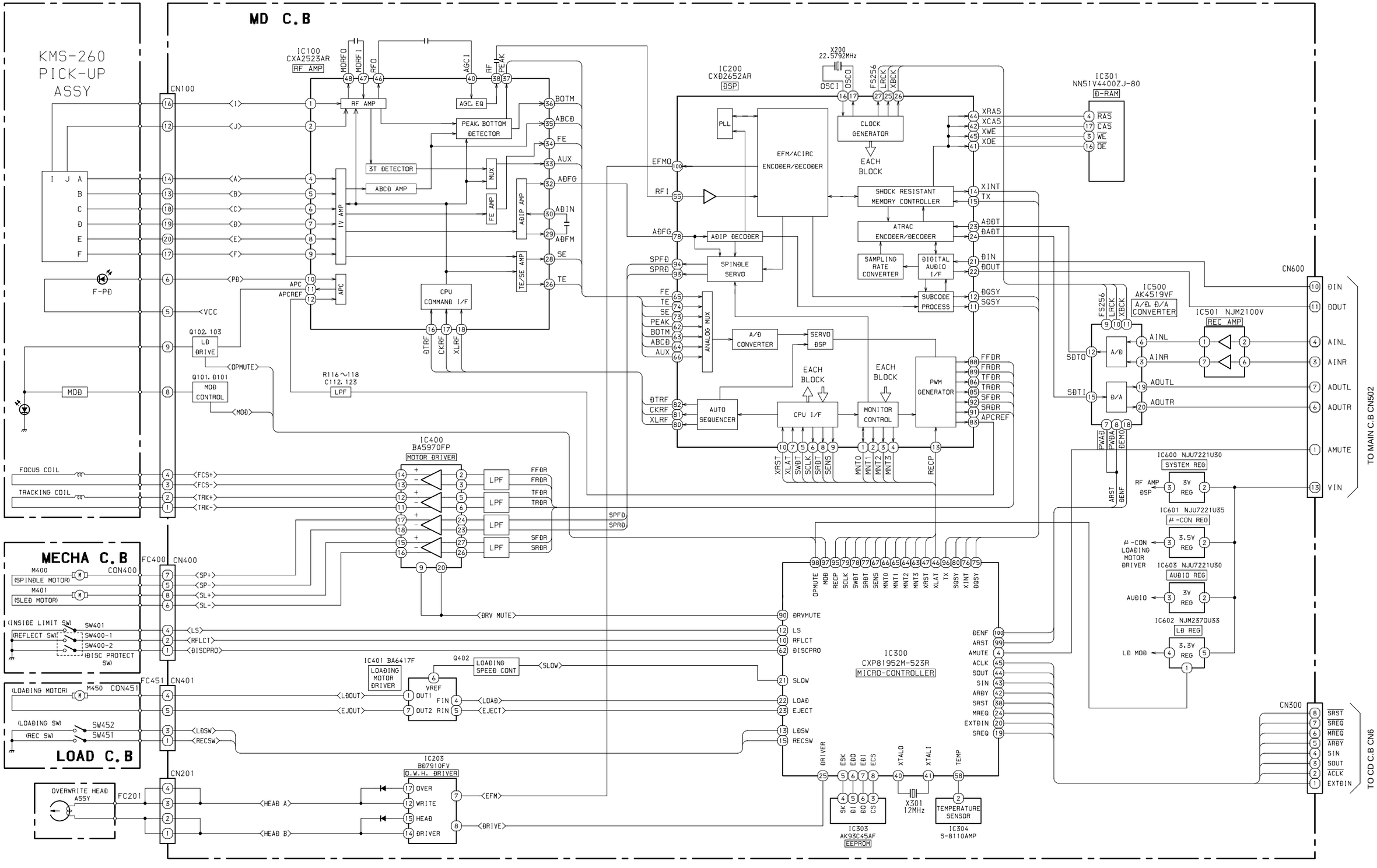
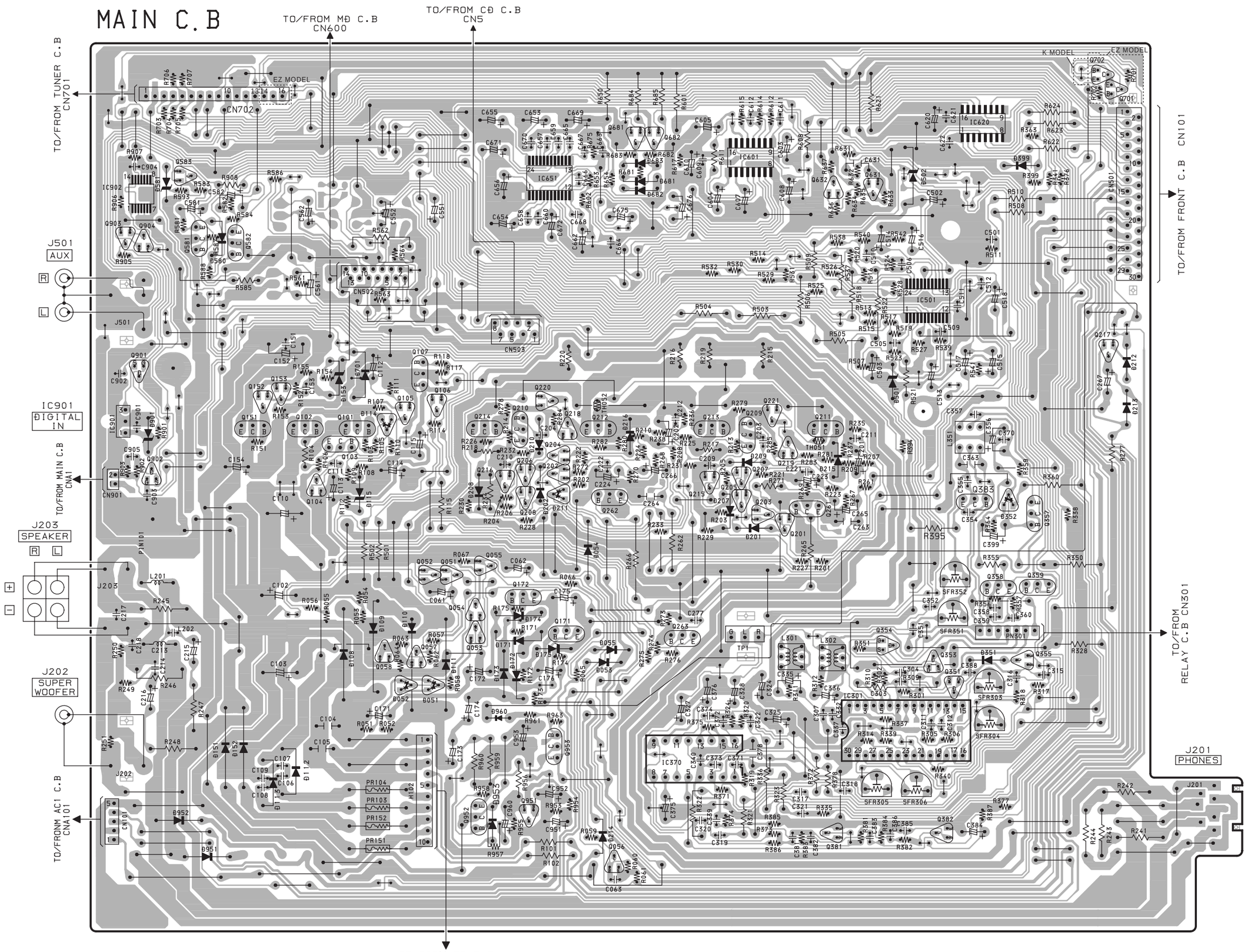
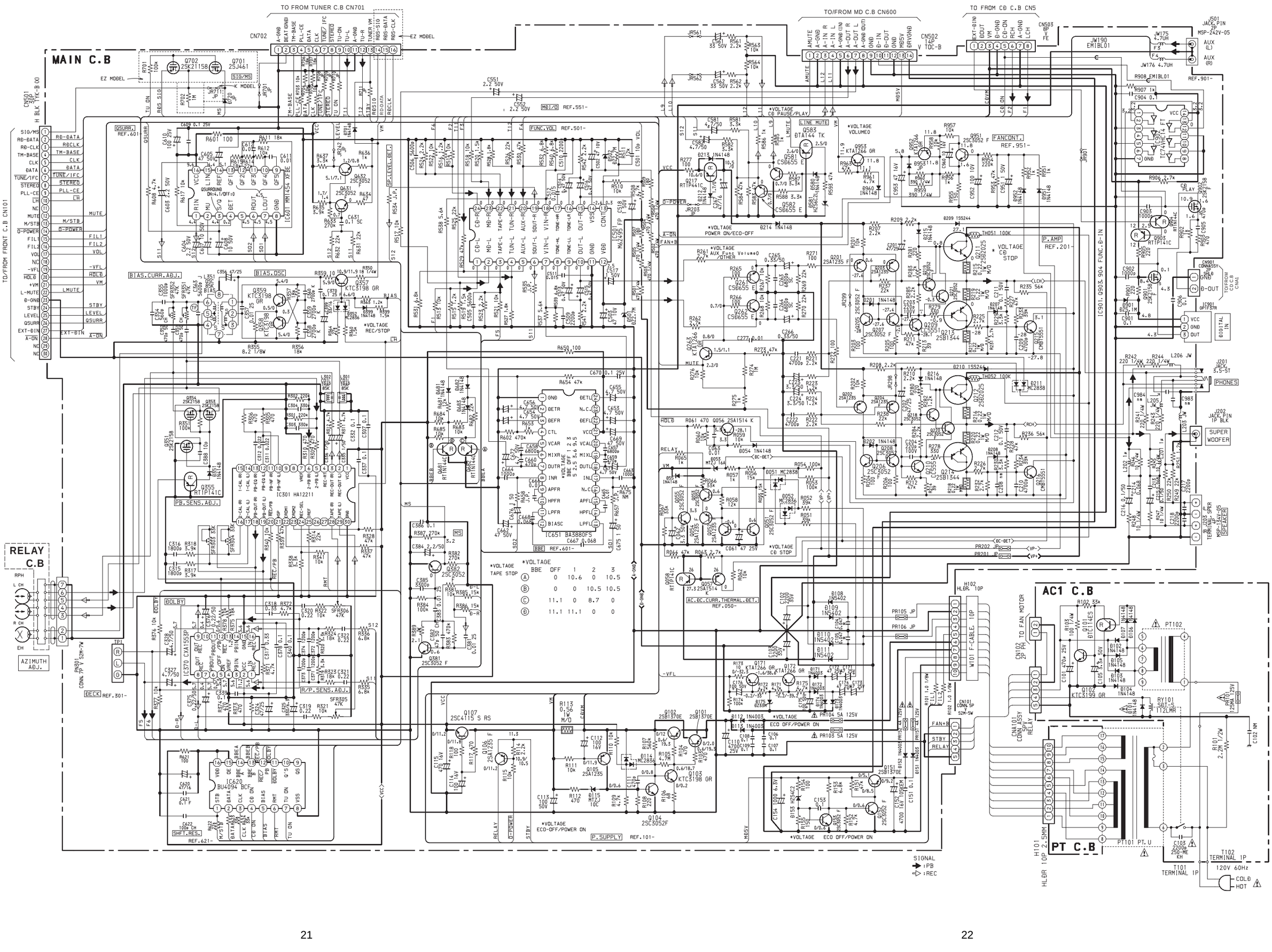


WIRING-1 (MAIN)

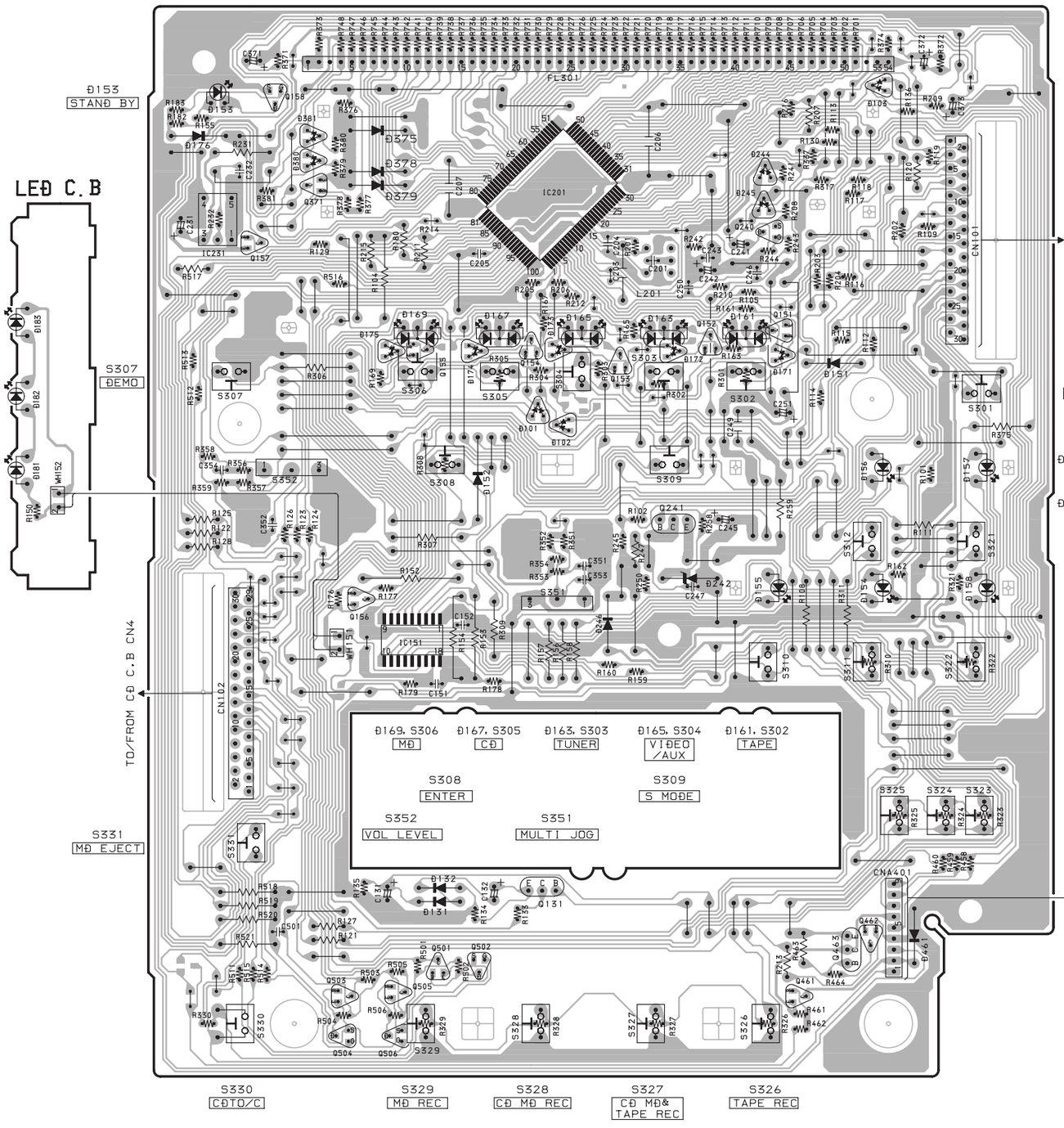
MAIN C.B



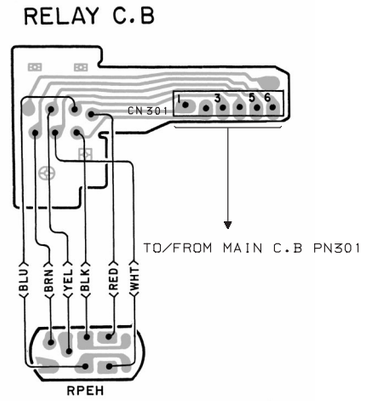
SCHEMATIC DIAGRAM-1 (MAIN)



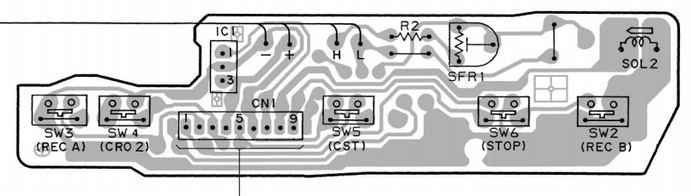
FRONT C.B



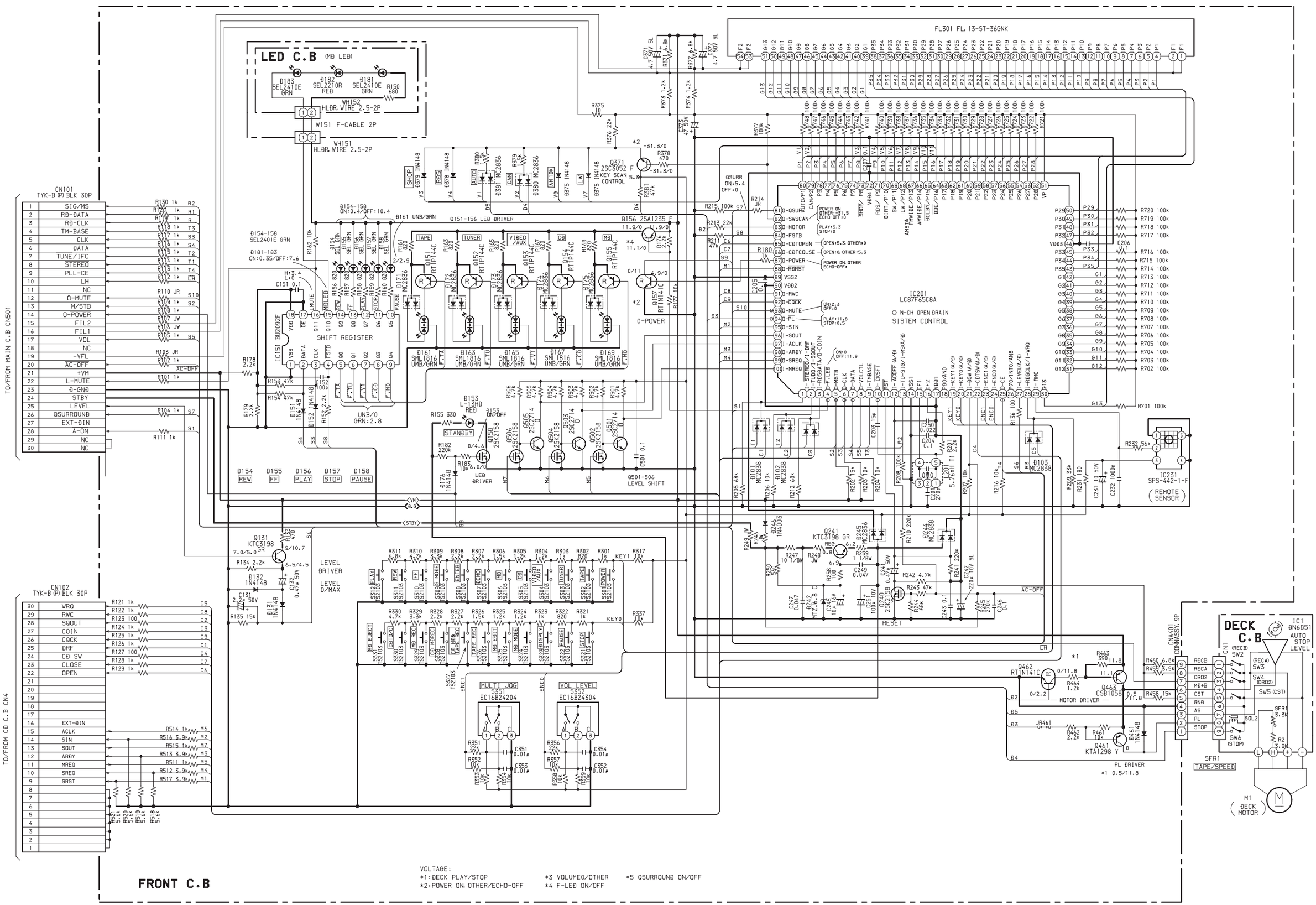
RELAY C.B



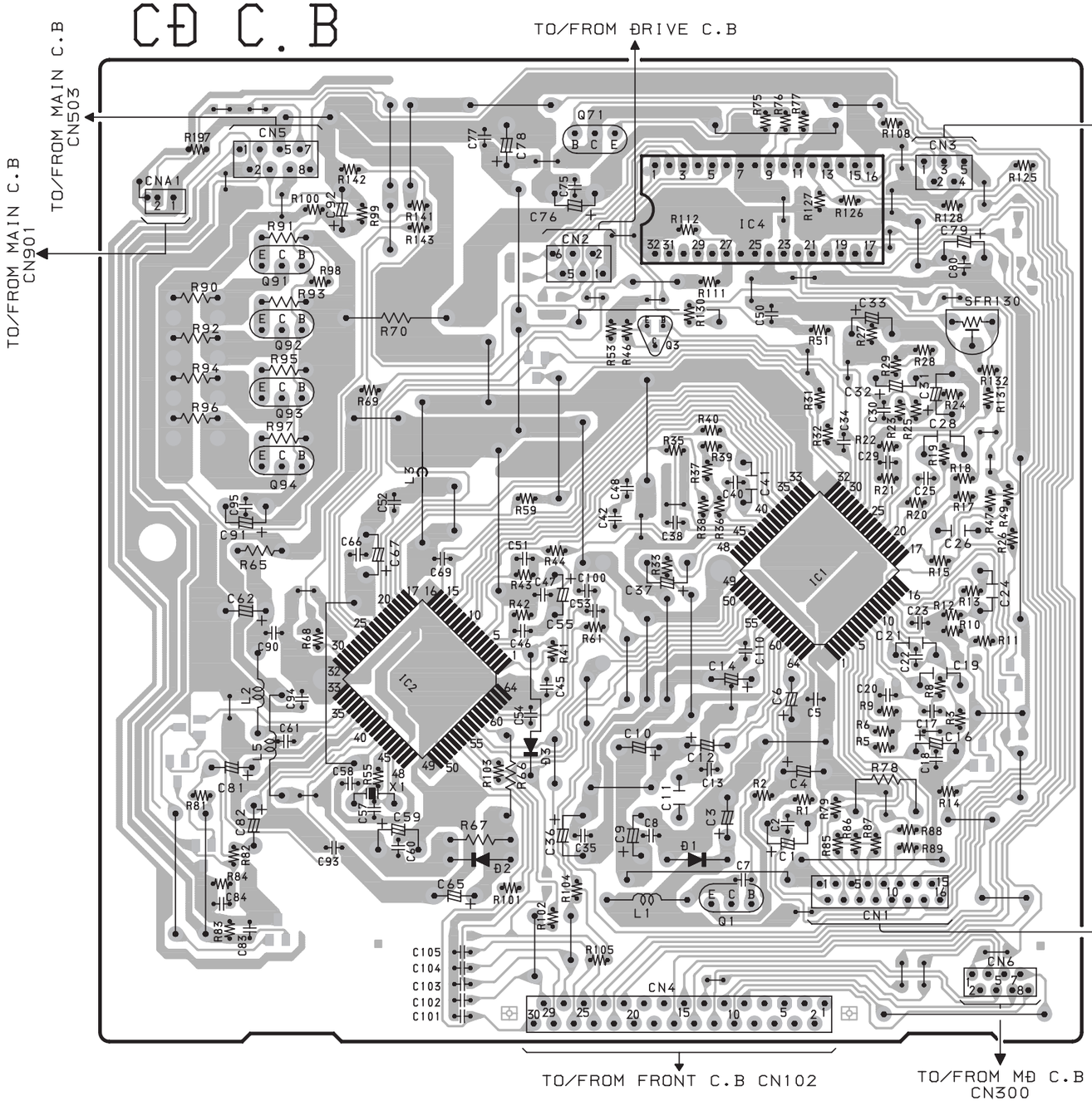
DECK C.B



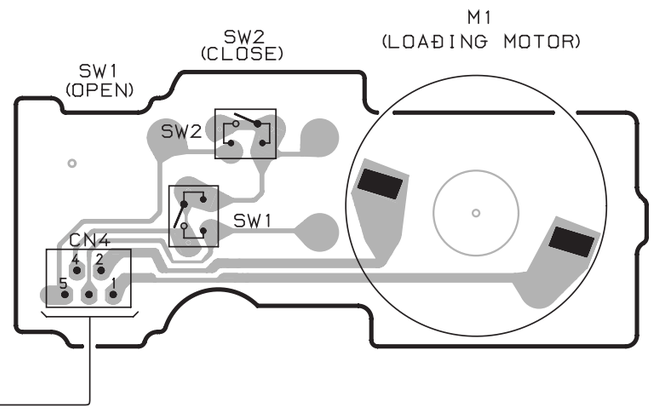
SCHEMATIC DIAGRAM-2 (FRONT)



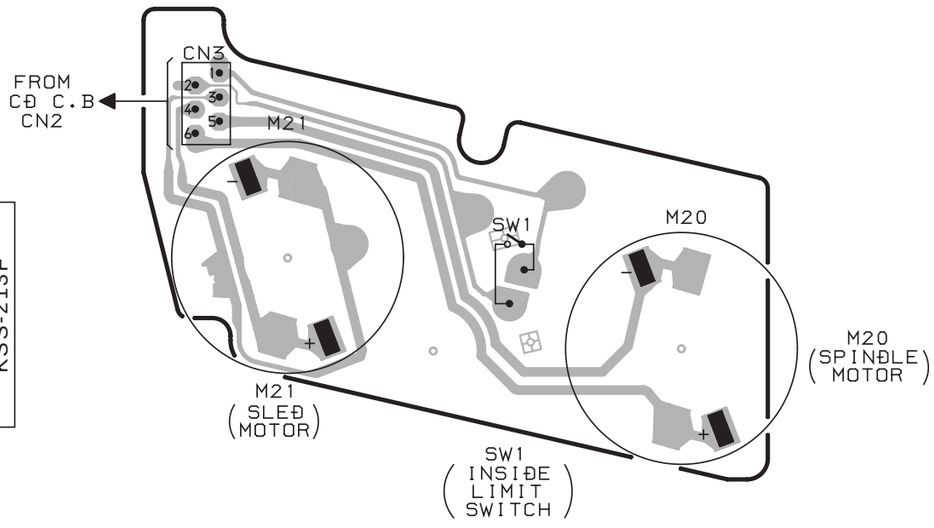
CD C.B



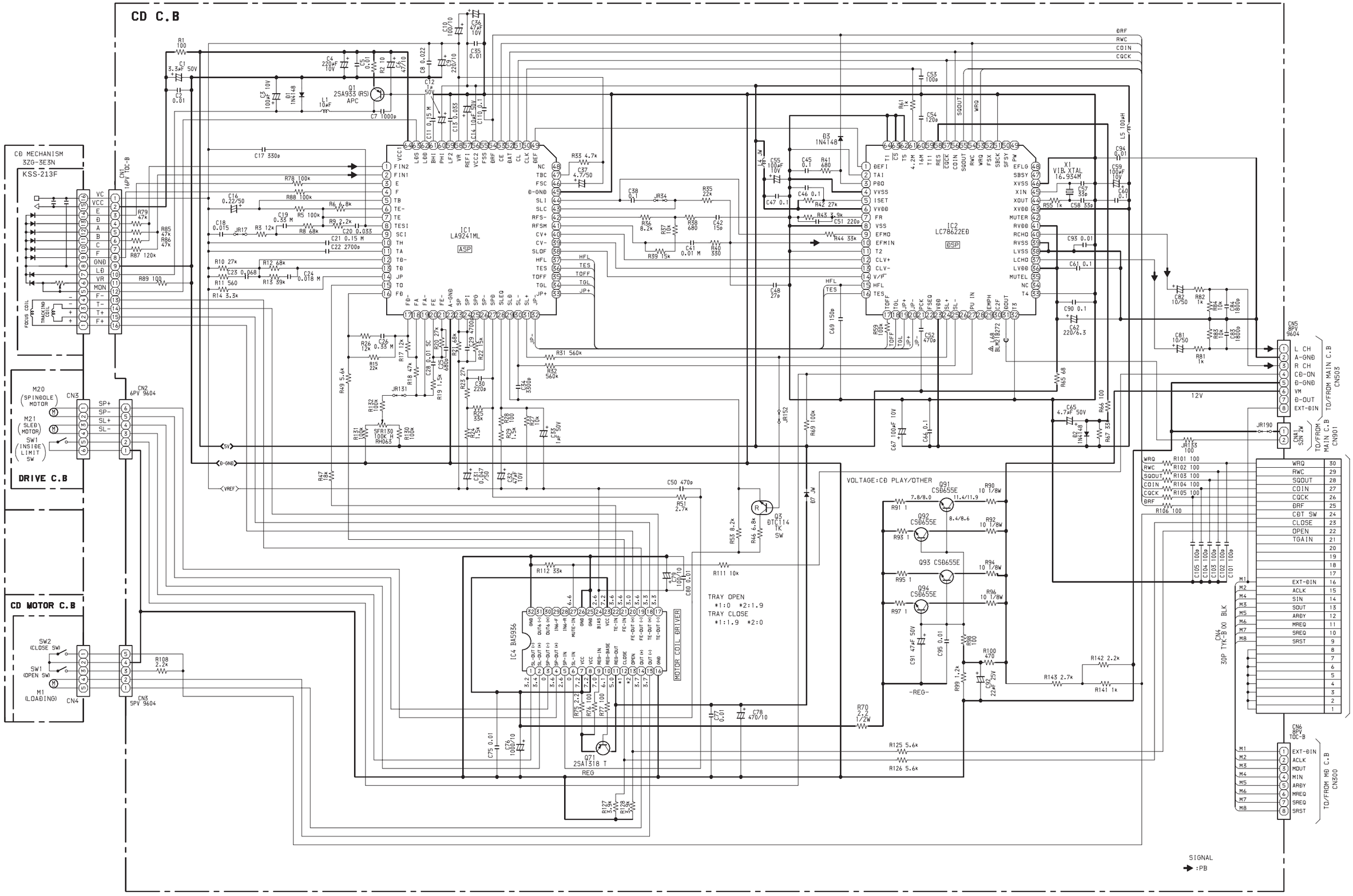
CD MOTOR C.B



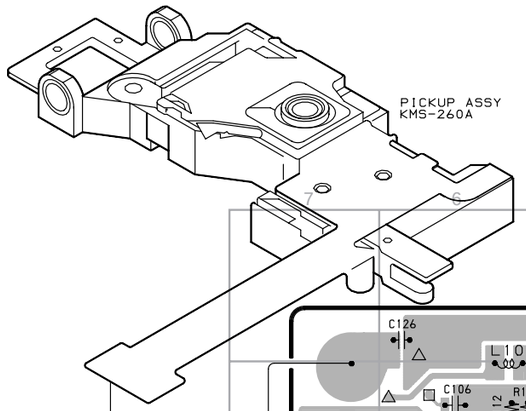
DRIVE C.B



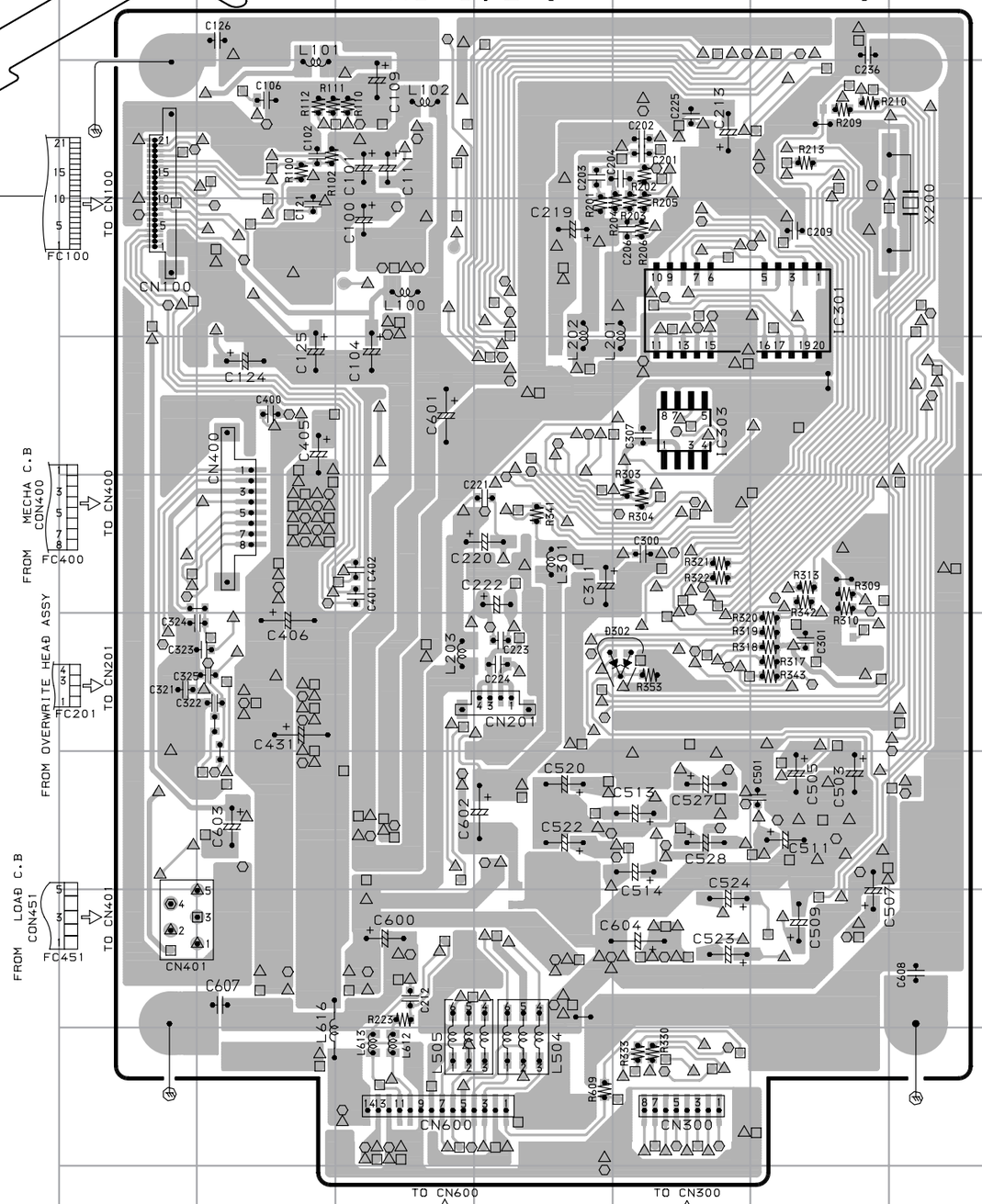
SCHEMATIC DIAGRAM-3 (CD)



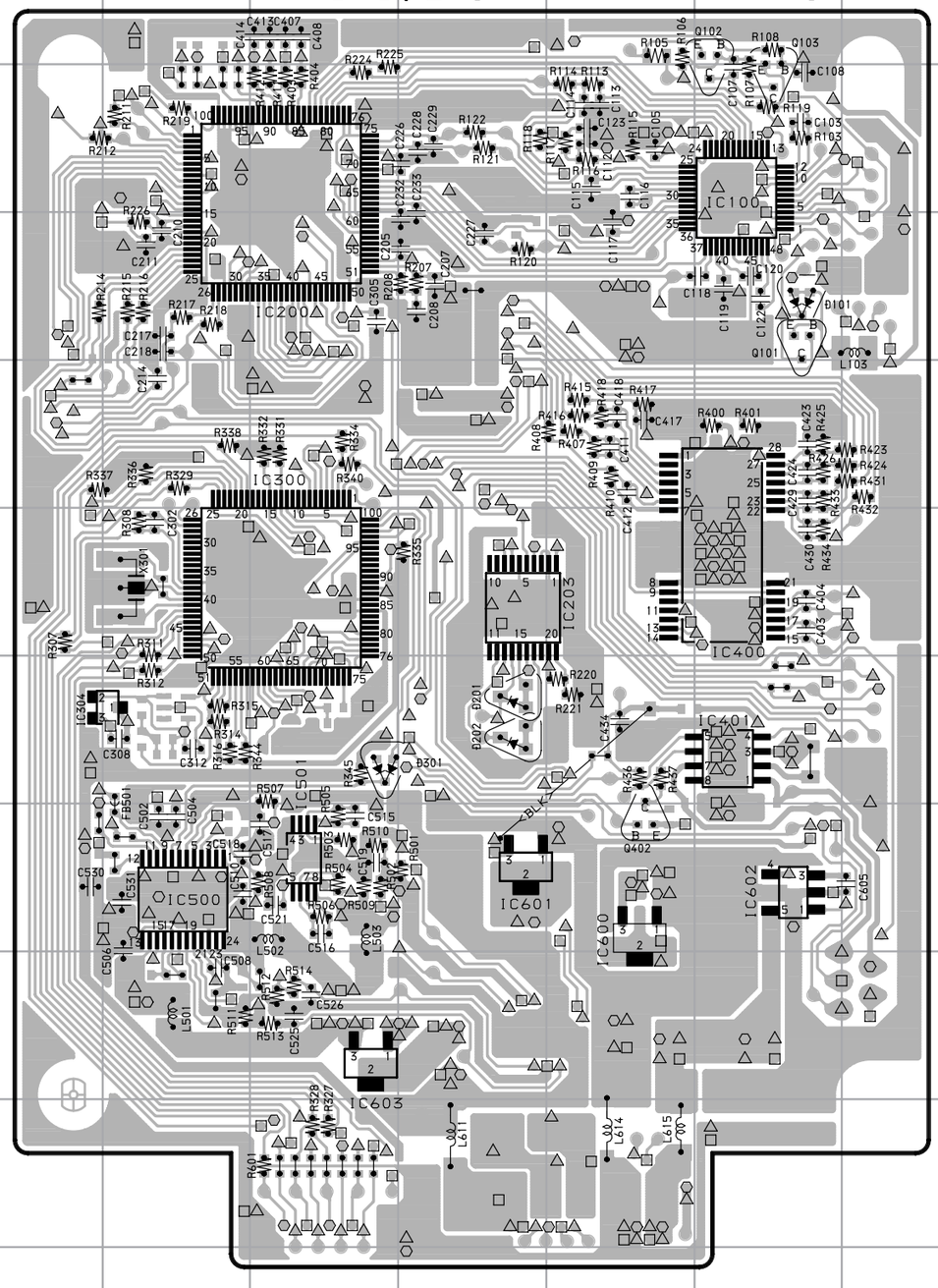
WIRING-4 (MD)



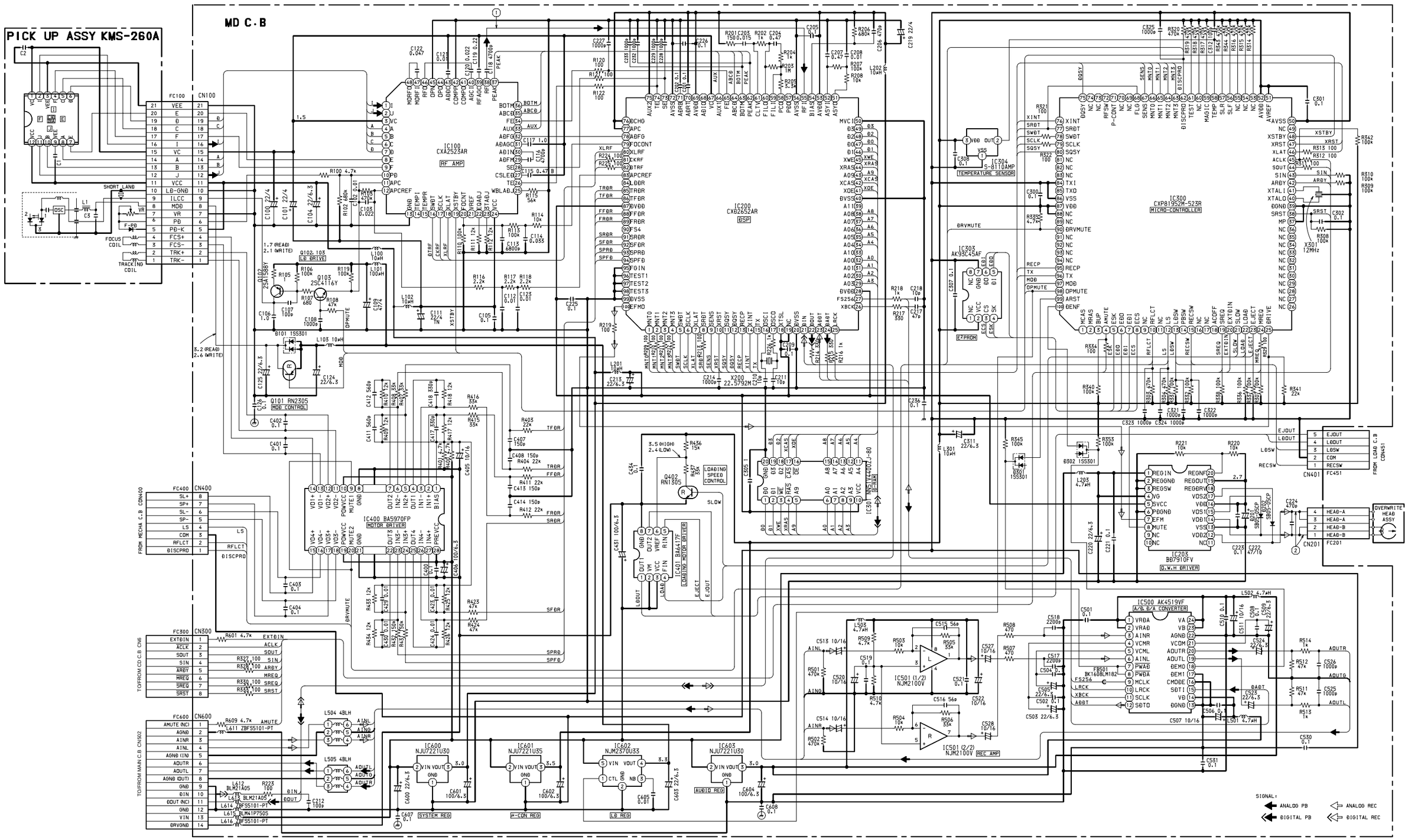
MD C.B (COMPONENT SIDE)



MD C.B (CONDUCTOR SIDE)

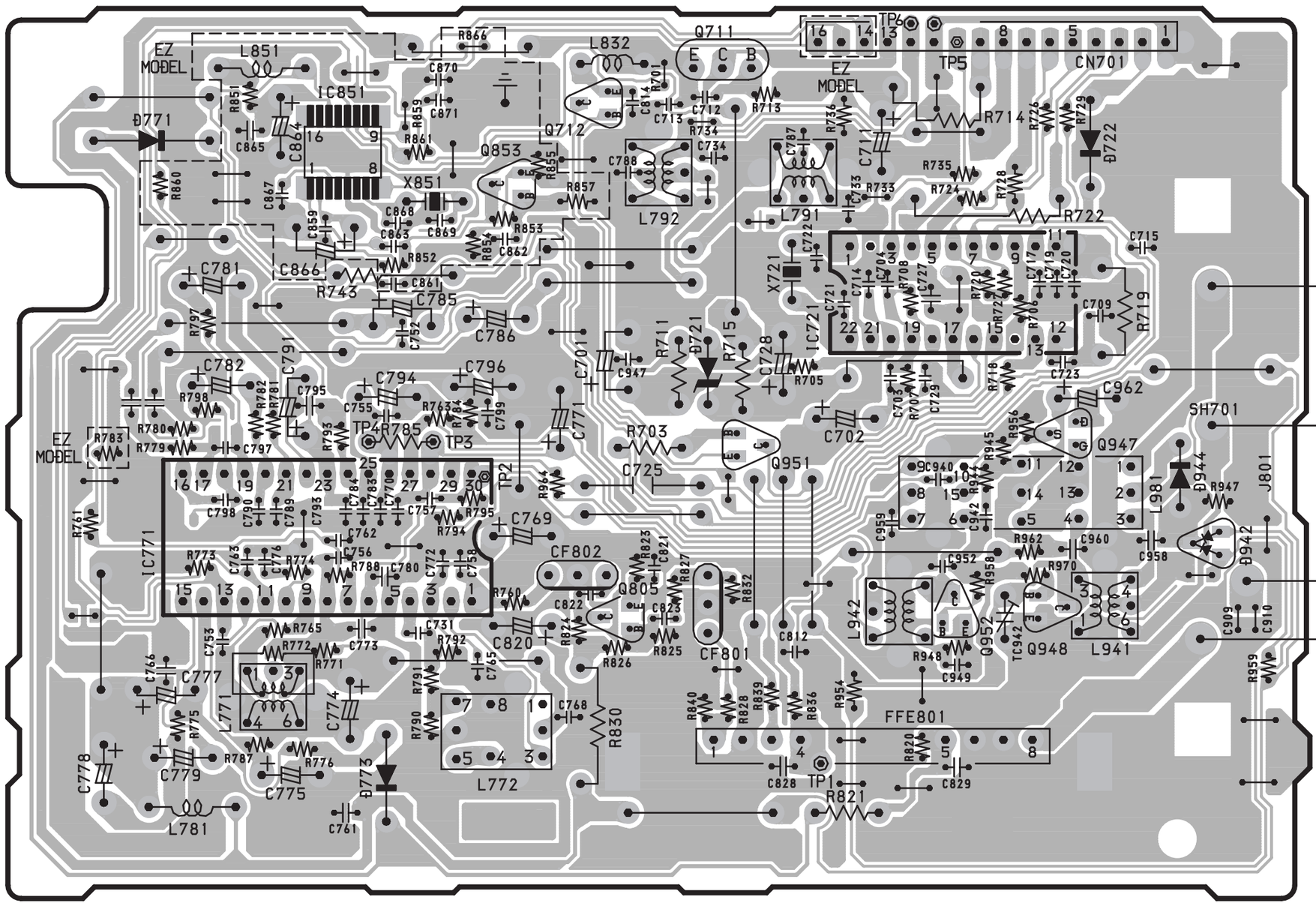


SCHEMATIC DIAGRAM-4 (MD)



TUNER C.B

TO MAIN C.B
CN701

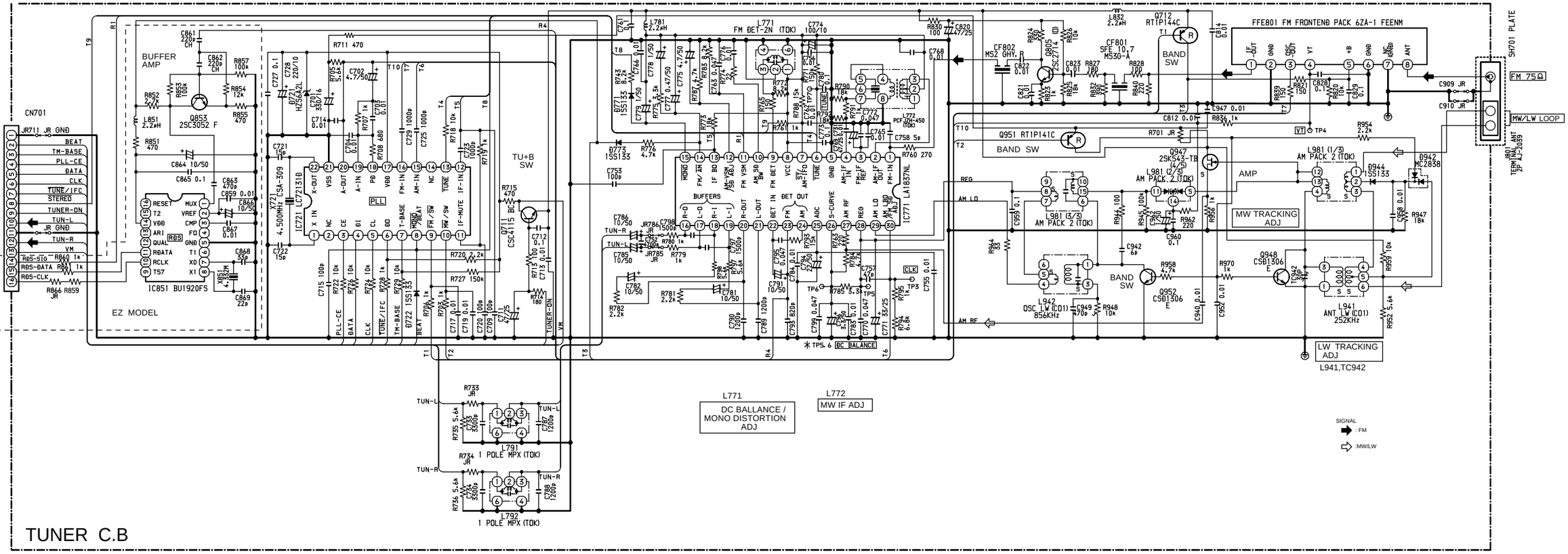


J801
ANTENNA

MW / LW
LOOP

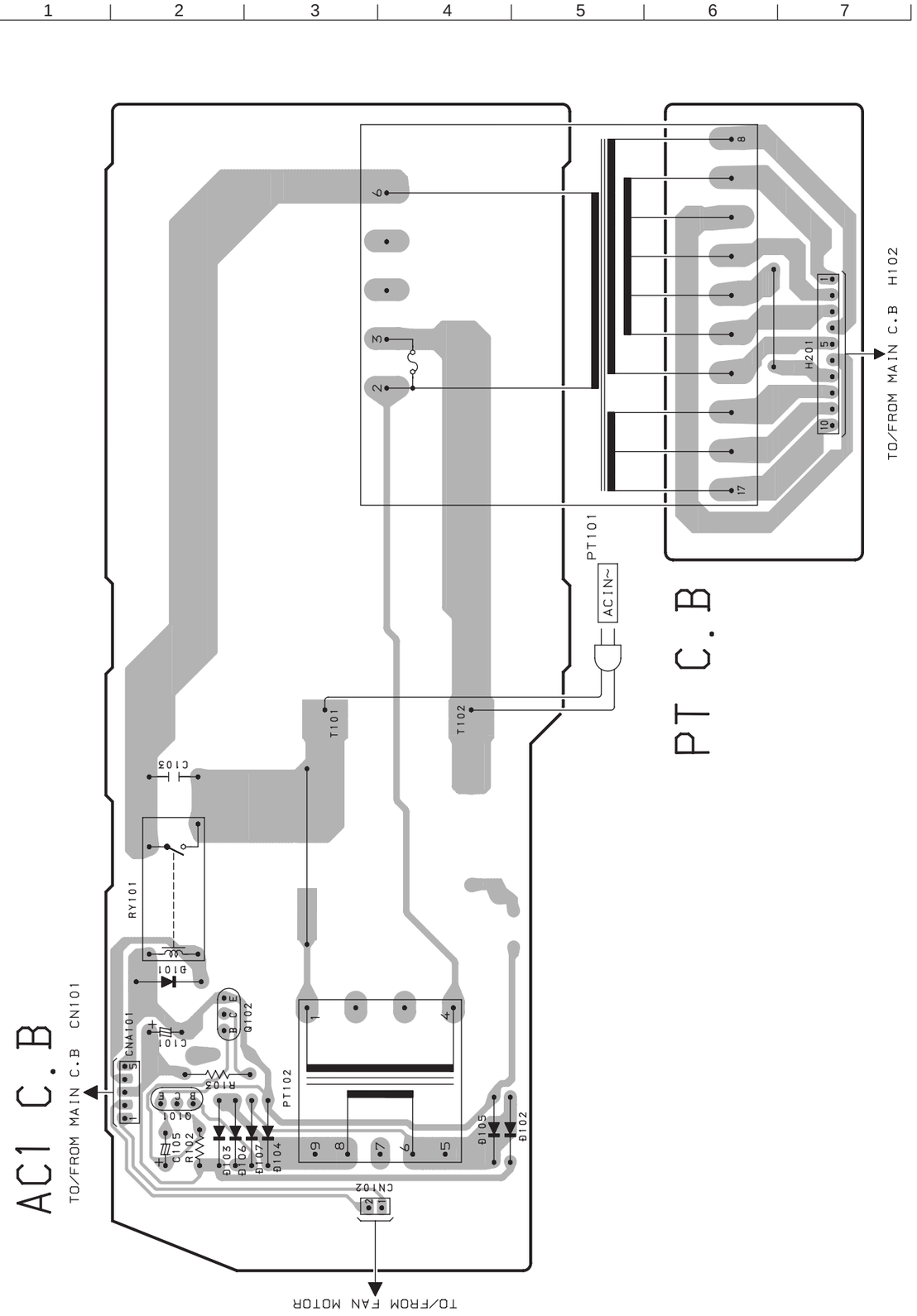
FM 75Ω

SCHEMATIC DIAGRAM-5 (TUNER)

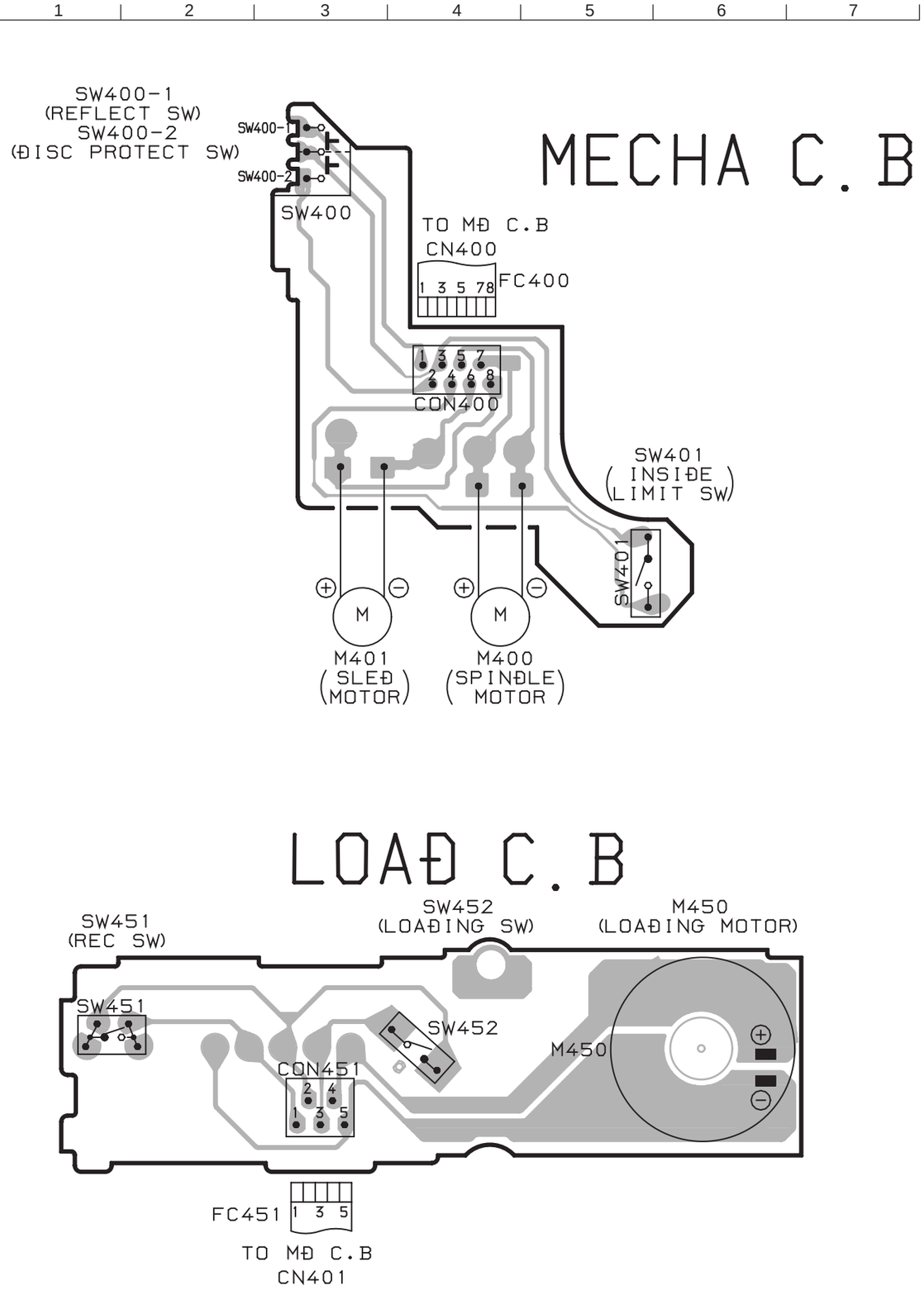


TUNER C.B

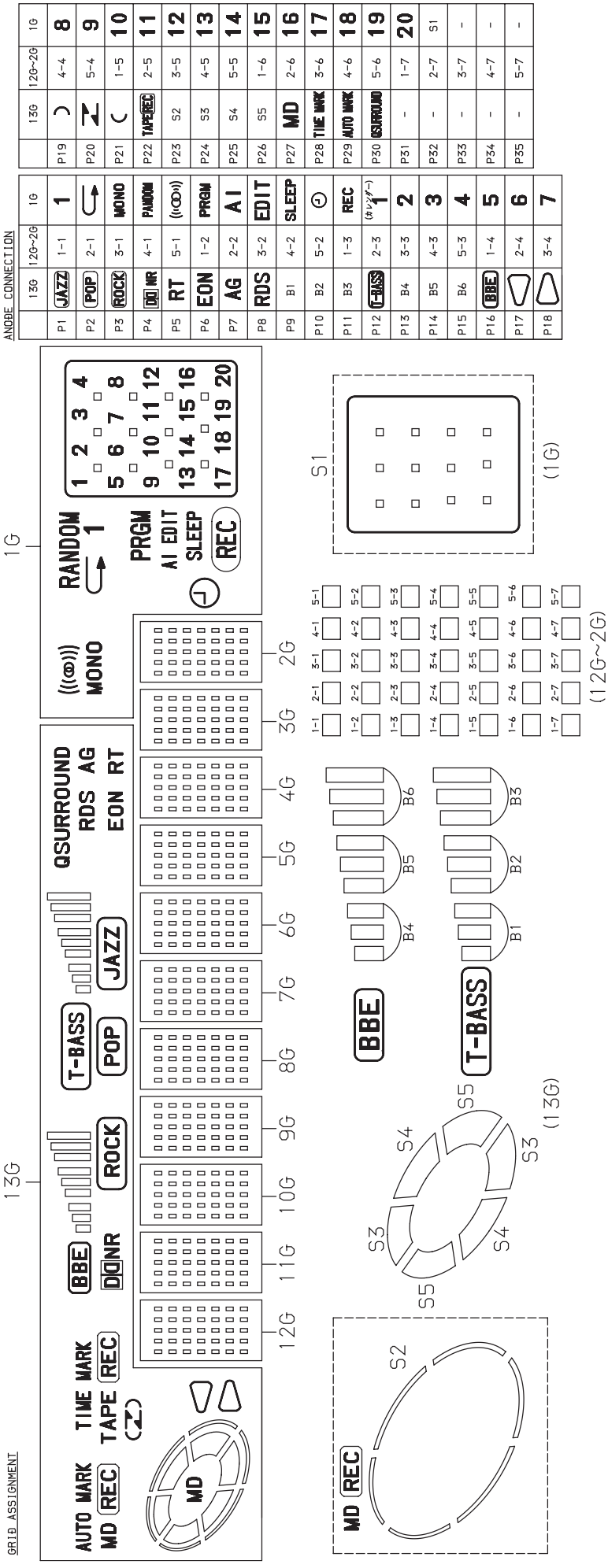
WIRING-6 (AC/PT)



WIRING-7 (MECHA/LOAD)

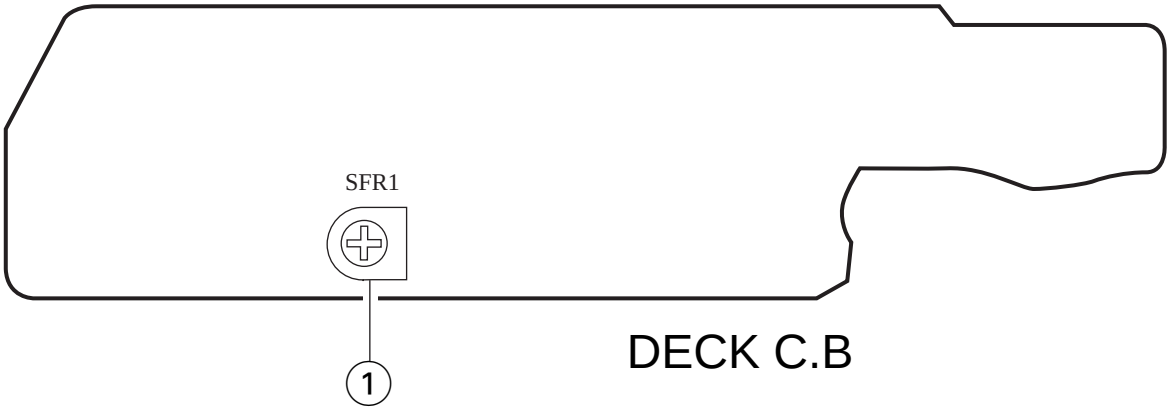


FL (13-ST-36GNK) GRID ASSIGNMENT/ANODE CONNECTION

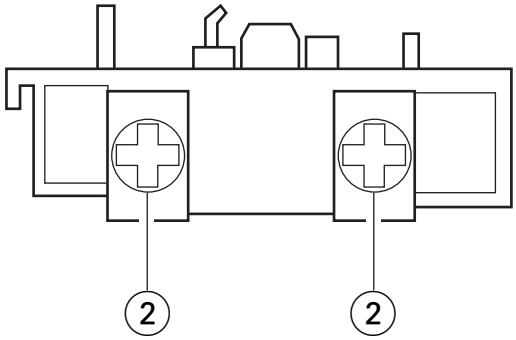


	13G	12G~2G	1G
P1	JAZZ	1-1	1
P2	POP	2-1	
P3	ROCK	3-1	MONO
P4	D NR	4-1	RANDOM
P5	RT	5-1	((∞))
P6	EON	1-2	PRGM
P7	AG	2-2	AI
P8	RDS	3-2	EDIT
P9	B1	4-2	SLEEP
P10	B2	5-2	
P11	B3	1-3	REC
P12	T-BASS	2-3	(ﾊﾚｲﾔｰ) 1
P13	B4	3-3	2
P14	B5	4-3	3
P15	B6	5-3	4
P16	BBE	1-4	5
P17		2-4	6
P18		3-4	7

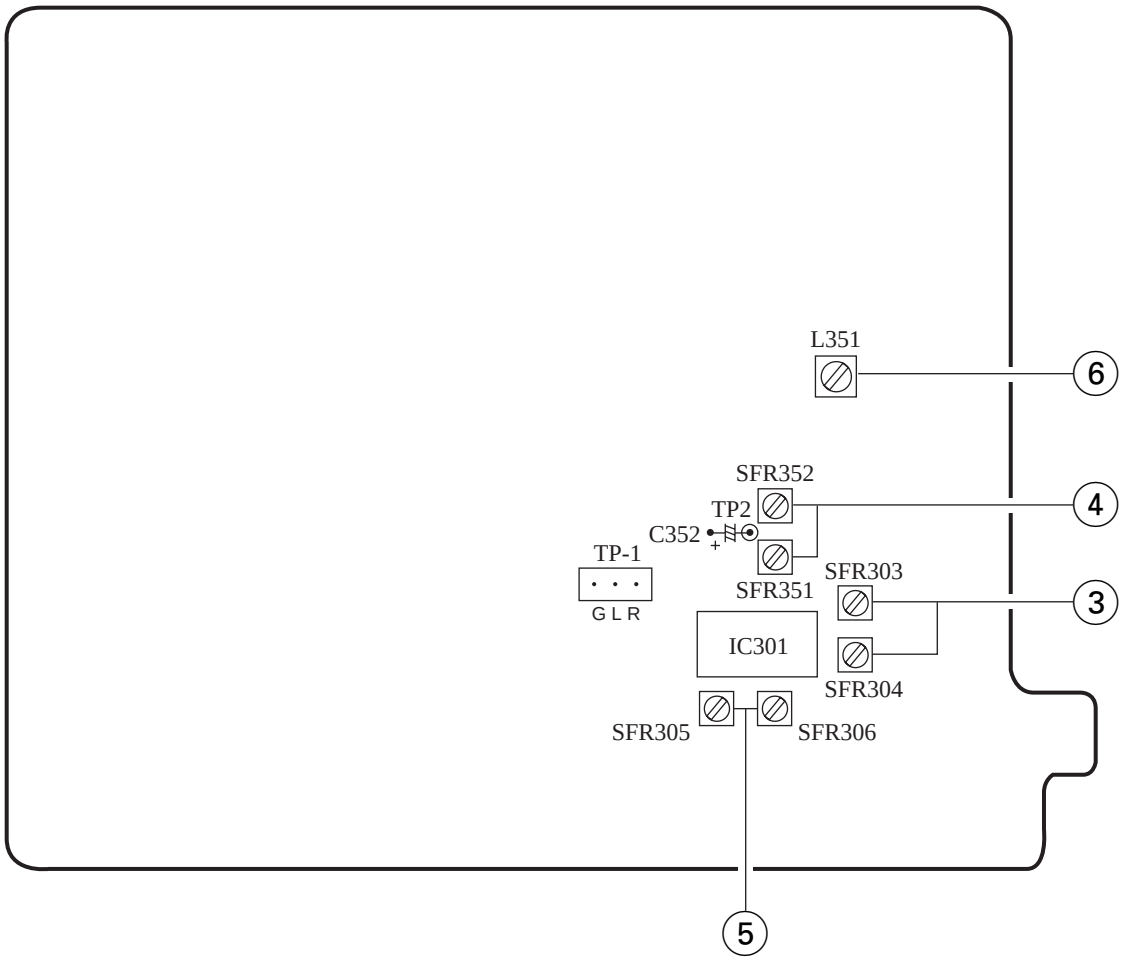
	13G	12G~2G	1G
P19		4-4	8
P20		5-4	9
P21		1-5	10
P22	TAPE REC	2-5	11
P23	S2	3-5	12
P24	S3	4-5	13
P25	S4	5-5	14
P26	S5	1-6	15
P27	MD	2-6	16
P28	TIME MARK	3-6	17
P29	AUTO MARK	4-6	18
P30	QSURROUND	5-6	19
P31	-	1-7	20
P32	-	2-7	S1
P33	-	3-7	-
P34	-	4-7	-
P35	-	5-7	-



R.P.E HEAD



MAIN C.B



< DECK SECTION >

1. Tape Speed Adjustment
   Settings:
   - Test tape: TTA-100
   - Test point: TP1
   - Adjustment location: SFR1

   Method: Playback the test tape by DECK2 and adjust SFR1 so that the frequency counter reads 3000Hz±5Hz. Check that the counter reading in the REV mode is within the range of ±45Hz of that in the FWD mode.

2. Azimuth Adjustment
   Settings:
   - Test tape: TTA-300
   - Test point: TP1
   - Adjustment location: Head azimuth adjustment screw

   Method: Playback the 10kHz signal of the test tape and adjust the adjustment screw so that the output becomes the -5dB point below the maximum reading. The adjustment must ends with the clockwise rotation of the adjustment screw. Perform this adjustment in both FWD and REV directions. Fix the adjustment screw with adhesive agent upon completion of adjustment.

3. PB Sensitivity Adjustment
   Settings:
   - Test tape: TTA-200
   - Test point: TP1
   - Adjustment location: SFR303 (Lch) SFR304 (Rch)

   Method: Play back the test tape and adjust SFRs so that the output level of the TP1 becomes 245mV±5mV.

4. REC/PB Frequency Response Adjustment
   Settings:
   - Test tape: TTA-602
   - Test point: TP1
   - Input signal: 315Hz/10kHz (LINE IN)
   - Adjustment location: SFR351 (Lch) SFR352 (Rch)

   Method: Establish the record mode. Input the 315Hz and the 10kHz signals from LINE IN with the input level so that TP1 has the signal level of 12mV. Record the 1kHz and the 10kHz signals, then play them back. Adjust SFR so that the output difference between the 315Hz and the 10kHz signals becomes 0dB±0.5dB.

5. REC/PB Sensitivity Adjustment
   Settings:
   - Test tape: TTA-602
   - Test point: TP1
   - Input signal: 1kHz /10kHz (LINE IN)
   - Adjustment location: SFR305 (Lch) SFR306 (Rch)

   Method: Establish the record mode. Input the 1kHz signal from LINE IN with the input level so that TP1 has the signal level of 12mV. Record the 1kHz signal, then play it back. Adjust SFR so that the output level becomes 12mV±0.5dB.

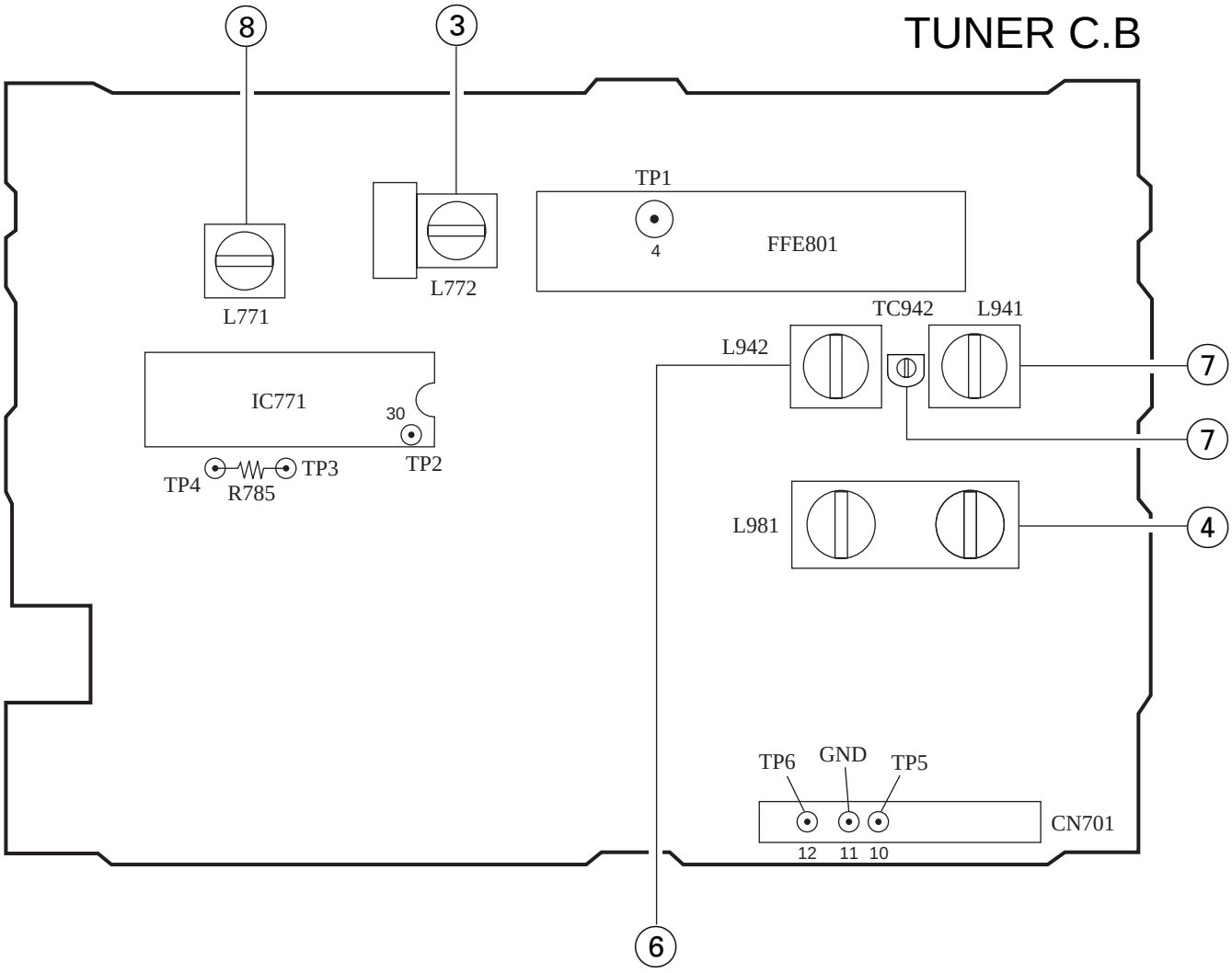
6. Bias OSC Frequency Adjustment
   Settings:
   - Test tape: TTA-601
   - Test point: TP2
   - Adjustment location: L351

   Method: Set to the REC mode. Adjust L351 so that the frequency at TP2 is 85.0kHz±1kHz.

PRACTICAL SERVICE FIGURE

< DECK SECTION >

Tape speed:	3000Hz±5.0%	
Wow & flutter: (W.R.M.S)	Less than 0.21%	
Distortion (REC/PB):	Less than 2% (NORM, CrO_2)	
Noise level (PB):	Less than 50mV (DOLBY NR OFF, NORM)	
	Less than 35mV (DOLBY NR ON, CrO_2)	
Test tape:	NORMAL	TTA-100
		TTA-300
		TTA-601
		TTA-602
	CrO_2	TTA-200


TUNER C.B
8
3
TP1
4
FFE801
L771
L772
TC942
L941
L942
7
7
IC771
30
TP2
TP4
R785
TP3
L981
4
TP6
GND
TP5
CN701
12
11
10
6

< TUNER SECTION >

1. Clock Frequency Check
   Settings: • Test point: TP2 (CLK IC770 pin30)
   Method: Set to MW 1602kHz and check that the test point becomes 2052kHz±45Hz (EZ).

2. MW VT Check
   Settings: • Test point: TP1 (VT)
   Method: Set to MW 1602kHz and check that the test point is less than 8.0V.
   Then set to MW 531kHz and check that the test point is more than 0.6V.

3. MW IF Adjustment
   Settings: • Test point: TP5, TP6
   L772 ..... 450kHz

4. MW Tracking Adjustment
   Settings: • Test point: TP5, TP6
   • Adjustment location: L981
   Method: Set to MW 999kHz and adjust L981 so that the test point becomes maximum.

5. FM VT Check
   Settings: • Test point: TP1 (VT)
   Method: Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 0.5V (87.5MHz) and less than 8.0V (108.0MHz).

6. LW VT Adjustment
   Settings: • Test point: TP2 (VT)
   • Adjustment location: L942
   Method: Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V±0.05V.
   Then set to LW 290kHz and check that the test point is less than 8.0V.

7. LW Tracking Adjustment
   Settings: • Test point: TP5, TP6
   • Adjustment location:
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method: Set up TC942 to center before adjustment.
   The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

8. DC Balance/Mono Distortion Adjustment
   Settings: • Test point: TP3, TP4
   • Adjustment location: L771
   • Input level: 54dB
   Method: Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V±0.04V.
   Next, check that the distortion is less than 1.3%.

PRACTICAL SERVICE FIGURE

< TUNER SECTION >

< FM SECTION >

IHF Sensitiviy:	Less than 13dB
(THD 3%)	(at 108.0/98.0MHz)
	Less than 14dB
	(at 98.0MHz)
Distortion:	Less than 1.2% (98.0MHz)
Stereo separation:	More than 12dB (98.0MHz)
Intermediate frequency:	10.7MHz

< MW SECTION >

Sensitivity:	Less than 60dB (at 600kHz)
(S/N 20dB)	Less than 58dB
	(at 1000/1400kHz)
Distortion:	Less than 1.5%
	(at 1000kHz)

< LW SECTION >

Sensitivity:	Less than 70dB (at 144kHz)
	Less than 68dB (at 198kHz)
	Less than 66dB (at 290kHz)

IC DESCRIPTION

IC, LA9241ML

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE–	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD–	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD–	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins.
19	FA–	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE–	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	NC	—	No connection.
24	SP	O	Single ended output of the CV+ and CV– pin input signal.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP–	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL–, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP–, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV–, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS–	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode (± search/+ search) select pin.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PD0 output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	TEST2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLV–	O	Disc motor control output. Three level output is possible using command.	
14	V/$\overline{P}$	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP–	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24-28	SL+ - PUIN	I/O	General purpose input/output pin 1 to 5.	The pin is controlled by the serial data command from microprocessor. When the pin is not used, set the pin to the input terminal and connect to 0V, or alternately set the pin to output terminal and leave the pin open.
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	TEST3, TEST4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{\text{CQCK}}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	$\overline{\text{RES}}$	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	TST11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	TEST5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{\text{CS}}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	TEST1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

Note: The same potential must be applied to the respective power supply terminals. (VDD, VVDD, LVDD, RVDD, XVDD)

IC, LC87F65C8A

Pin No.	Pin Name	I/O	Description
1	I-$\overline{\text{STEREO}}$/DRF	I	Connected to stereo detection and tuner CD ASP LA9240ML pin-54 DRF.
2	I-TUDO/I-SQOUT	I	Connected to tuner PLL IC LC72131 pin-⑥ DO and connected to CD DSP LC78622ED pin-55 DAT.
3	I-RDSDATA/O-COIN	I	Connected to RDS data input CD DSP LC78622ED pin-56 COIN and CD ASP LA9240ML pin-52 DAT.
4	O-$\overline{\text{F.LED}}$	O	Function LED control output.
5	O-M.STB	O	Connected to main shift resistor 4094 pin-① STB.
6	O-CLK	O	Connected to front shift resistor BU2092 pin-③ CLK, main shift resistor 4094 pin-③ CLK, and tuner PLL IC LC72131 pin-⑤ CL.
7	O-DATA	O	Connected to front shift resistor BU2092 pin-② DATA, main shift resistor 4094 pin-② DATA, and tuner PLL IC LC72131 pin-④ DI.
8	O-VOLCTL	O	Connected to VOL/P.EQ IC M62439SP pin-⑪ CONT.
9	I-TMBASE	I	Reference clock input for clock PLL IC LC72131 pin-⑦.
10	O-$\overline{\text{CKSFT}}$	O	Clock shift output is shifted: “L”
11	RESET	I/O	Microprocessor reset.
12	I-ACOFF	I	Hold status detection.
13	I-TU-SIG/I-MS	I	RDS signal level AD value input, and CD ASP LA9240ML pin-52 DAT.
14	VSS	—	GND.
15	CF1	—	Connected to 5.76 MHz oscillator
16	CF2	—	Connected to 5.76 MHz oscillator.
17	VDD1	—	Microprocessor power supply. (µ-com 5 V)
18	N.C	—	Not connected.
19	I-KEY1	I	Key AD value input.
20	I-KEY0	I	Key AD value input.
21	I-DSW	I	Deck MECA status detection input. (AD)
22	I-CDTSW	I	CD tray OPEN/CLOSE status detection input. (AD)
23	I-ENC1	I	AD value input from multiple jog rotary encoder outputs A and B.
24	I-ENC0	I	Electronic VOL’s AD value input from rotary encoder outputs A and B.
25	O-CE	O	Connected to tuner PLL IC LC72131 pin-③ CE.
26	N.C.	—	Not connected.
27	I-LEVEL	I	Level meter input.
28	I-RD-CLK/I-WQR	I	Connected to RDS CLK input and CD DSP LC78622ED pin-53 WRQ.
29	I-RMT	I	Remote control input.
30-42	T0-T12	O	FL tube grid output. (13G-1G)
43-45	S13-S15	O	FL tube anode output. (P35-P33)
46	VDD3	—	Microprocessor power supply. (µ-com 5 V)
47-50	S16-S19	O	FL tube anode output. (P32-P29)
51	VP	—	Connected to minus power supply for FL, -VFL.
52-63	S20-S31	O	FL tube anode output. (P28-P17)
64	S32/$\overline{\text{BBE}}$	O	FL tube anode output (P16), and INT.DIODE MATRIX input.
65	S33/$\overline{\text{DOLBY}}$	O	FL tube anode output (P15), and INT.DIODE MATRIX input.

Pin No.	Pin Name	I/O	Description
66	S34/AM10k	O	FL tube anode output (P14), and INT.DIODE MATRIX input.
67	S35/FMWIDE&AMST	O	FL tube anode output (P13), and INT.DIODE MATRIX input.
68	S36/LW	O	FL tube anode output (P12), and INT.DIODE MATRIX input.
69	S37/SW	O	FL tube anode output (P11), and INT.DIODE MATRIX input.
70	S38/OIRT	O	FL tube anode output (P10), and INT.DIODE MATRIX input.
71	S39/RDS	O	FL tube anode output (P9), and INT.DIODE MATRIX input.
72	VDD4	—	Microprocessor power supply. (µ-com 5 V)
73-78	S40-S45	O	FL tube anode output. (P8-P3)/SHOP
79	S46/CAM	O	(P2)/deck mechanism status detection input. (CAM)
80	S47/AUTO	O	(P1)/deck mechanism status detection input. (AUTO)
81	O-QSURR	O	Q-surround IC control output.
82	O-SWSCAN	O	Key scan detection timing switch.
83	O-MOTOR	O	Deck mechanism motor control output.
84	O-FSTB	O	Connected to front shift resistor IC BU2092 pin-⑤.
85	O-CDOPEN	O	CD tray open control output.
86	O-CDCLOSE	O	CD tray close control output.
87	O-P.ON	O	Power supply ON/OFF control.
88	O-$\overline{\text{MDRST}}$	O	MD unit 7ZG-9A reset signal output.
89	VSS2	—	GND.
90	VDD2	—	Microprocessor power supply. (µ-com 5 V)
91	O-RWC	O	Connected to CD DSP LC78622ED pin-54 RWC and CD ASP LA9240ML pin-53 CE.
92	O-$\overline{\text{CQCK}}$	O	Connected to CD DSP LC78622ED pin-57 $\overline{\text{CQCK}}$ and CD ASP LA9240ML pin-51 CL.
93	O-MUTE	O	Main mute output.
94	O-$\overline{\text{PL}}$	O	Deck mechanism plunger solenoid control output.
95	O-SIN	O	MD unit control serial data output.
96	I-SOUL	I	MD unit control serial data input.
97	I-ACLK	I	MD unit control serial data input.
98	O-ARDY	O	MD unit control serial data send/receive ready output.
99	O-SREQ	O	MD unit control serial data transfer request .
100	O-MREQ	O	MD unit control serial data transfer request.

IC, CXD2652AR

Pin No.	Pin Name	I/O	Description
1	MNT0	O	Monitor output terminal.
2	MNT1	O	Monitor output terminal.
3	MNT2	O	Monitor output terminal.
4	MNT3	O	Monitor output terminal.
5	SWDT	I	Microprocessor serial interface data input.
6	SCLK	I	Microprocessor serial interface shift clock input.
7	XLAT	I	Microprocessor serial interface latch input. Latched at falling down edge.
8	SRDT	O	Microprocessor serial interface data output.
9	SENS	O	The terminal which outputs internal status in accordance with the address of the microprocessor serial interface.
10	XRST	I	Reset input. L: reset.
11	SQSY	O	Disc sub code Q sync/ADIP sync output.
12	DQSY	O	Subcode Q sync output of U-bit CD or MD format when the DIGITAL IN source is CD or MD.
13	RECP	I	Laser power selection input. H: Recording power, L: Playback power.
14	XINT	O	Interrupt request output terminal. L is output when interrupt status is generated.
15	TX	I	Record data output enable signal input terminal. H: enable.
16	OSCI	I	Crystal oscillator circuit input terminal.
17	OSCO	O	Crystal oscillator circuit output terminal. (Inverted output of OSCI).
18	XTSL	I	OSCI terminal input frequency selection. H: 512 Fs (22.5792 MHz), L: 1024 Fs (45.1584 MHz).
19	NC	—	Not connected.
20	DVSS	—	Digital GND.
21	DIN	I	Digital audio interface signal input.
22	DOUT	O	Digital audio interface signal output.
23	ADDT	I	Analog recording signal input terminal. (External A/D converter output is connected to this terminal).
24	DADT	O	RECORD monitor output/decode audio data output.
25	LRCK	O	LRCK (44.1 kHz) output terminal to external audio block.
26	XBCK	O	Bit clock output (2.8224 kHz) output terminal to external audio block.
27	FS256	O	256 Fs output. (11.2896 MHz).
28	DVDD	—	Digital power supply.
29	A03	O	Address output to external DRAM.
30	A02	O	Address output to external DRAM.
31	A01	O	Address output to external DRAM.
32	A00	O	Address output to external DRAM.
33	A10	O	Address output to external DRAM. (Not used).
34	A04	O	Address output to external DRAM.
35	A05	O	Address output to external DRAM.
36	A06	O	Address output to external DRAM.
37	A07	O	Address output to external DRAM.

Pin No.	Pin Name	I/O	Description
38	A08	O	Address output to external DRAM.
39	A11	O	Address output to external DRAM. (Not used).
40	DVSS	—	Digital GND.
41	XOE	O	External DRAM output enable.
42	XCAS	O	$\overline{\text{CAS}}$ output to external DRAM.
43	A09	O	Address output to external DRAM.
44	XRAS	O	$\overline{\text{RAS}}$ output to external DRAM.
45	XWE	O	Write enable for external DRAM.
46	D1	I/O	Data bus for external DRAM.
47	D0	I/O	Data bus for external DRAM.
48	D2	I/O	Data bus for external DRAM.
49	D3	I/O	Data bus for external DRAM.
50	MVCI	I	External VCO (784 fs) clock input.
51	ASYO	O	Playback EFM full swing output. (L: VSS, H: VDD).
52	ASYI	I	Playback EFM comparator slice voltage input.
53	AVDD	—	Analog GND.
54	BIAS	I	Playback EFM comparator bias current input.
55	RFI	I	Playback EFM RF signal input.
56	AVss	—	Analog power supply.
57	PDO	O	Phase comparison output to EFM decoder analog PLL.
58	PCO	O	Phase comparison output to the master PLL of playback digital PLL and to the recording EFM PLL.
59	FILI	I	Filter input to the master PLL of playback digital PLL and to the recording EFM PLL.
60	FILO	O	Filter output to the master PLL of playback digital PLL and to the recording EFM PLL.
61	CLTV	I	Internal VCO control voltage of the master PLL of playback digital PLL and of the recording EFM PLL.
62	PEAK	I	Optical light volume’s peak hold signal input.
63	BOTM	I	Optical light volume’s bottom hold signal input.
64	ABCD	I	Optical light volume signal input.
65	FE	I	Focus error signal input.
66	AUX1	I	Auxiliary input 1.
67	VC	I	Center terminal voltage input.
68	ADIO	O	Monitor output of A/D converter input signal.
69	AVDD	—	Analog power supply.
70	ADRT	I	Voltage input of the upper limit of the A/D converter operation range.
71	ADRB	I	Voltage input of the lower limit of the A/D converter operation range.
72	AVSS	—	Analog GND.
73	SE	I	Sled error signal input.
74	TE	I	Tracking error signal input.
75	AUX2	I	Auxiliary input 2.

Pin No.	Pin Name	I/O	Description
76	DCHG	I	Connected to the low impedance power supply.
77	APC	I	Error signal input to the laser digital APC.
78	ADFG	I	ADIP2 binary-converted FM signal (22.05±1 kHz) input.
79	F0CNT	O	Current source setting output terminal to CXA2523.
80	XLRF	O	Latch output for CXA2523 control. Latched at rise-up.
81	CKRF	O	Shift clock output for CXA2523 control.
82	DTRF	O	Data output for CXA2523 control.
83	APCREF	O	Reference PWM output to laser APC.
84	LDDR	O	PWM output to laser digital APC. (Not used).
85	TRDR	O	Tracking servo drive PWM output. (-).
86	TFDR	O	Tracking servo drive PWM output. (+).
87	DVDD	—	Digital power supply.
88	FFDR	O	Focus servo drive PWM output. (+).
89	FRDR	O	Focus servo drive PWM output. (-).
90	FS4	O	4 fs output. (176.4 kHz).
91	SRDR	O	Sled servo drive PWM output. (-).
92	SFDR	O	Sled servo drive PWM output. (+).
93	SPRD	O	Spindle servo drive PWM output. (PWM (-) or negative polarity).
94	SPFD	O	Spindle servo drive PWM output. (PWM (+) or PWM absolute value).
95	FGIN	I	FG input to spindle CAV servo.
96	TEST1	I	Test pin. Connected to GND.
97	TEST2	I	Test pin. Connected to GND.
98	TEST3	I	Test pin. Connected to GND.
99	DVSS	—	Digital GND.
100	EFMO	O	Low signal during playback. EFM (encode data) output: during recording.

IC, CXP81952

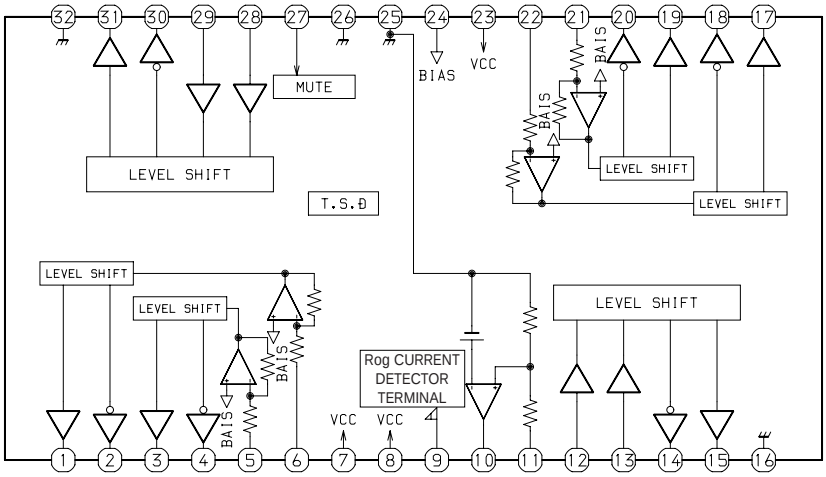
Pin No.	Pin Name	I/O	Description
1	MCAS	—	Not used.
2	MRAS	—	
3	BUP	—	
4	AMUTE	O	Audio mute signal output.
5	ESK	O	Serial clock output for EEPROM interface.
6	EDO	O	Serial data output for EEPROM interface.
7	EDI	I	Serial data input for EEPROM interface.
8	ECS	O	EEPROM interface chip select signal output.
9	—	—	Not used.
10	RFLCT	I	DISC reflectance factor detection switch input.
11	—	—	Not used.
12	LS	I	Optical pickup inner circumference detection switch input.
13	LDSW	I	Loading mechanism, EJECT position detection switch input.
14	PBSW	I	Loading mechanism, PB position detection switch input.
15	RECSW	I	Loading mechanism, RECORD position detection switch input.
16	—	—	Not used.
17	—	—	
18	ACOFF	—	
19	SREQ	I	System control send request signal input for system control interface.
20	EXTDIN	O	External DIGITAL-IN enable signal output.
21	SLOW	O	Loading mechanism speed control signal input.
22	LOAD	O	Loading mechanism operational direction control signal input 1.
23	EJECT	O	Loading mechanism operational direction control signal input 2.
24	MREQ	O	MD microprocessor send request signal output for system control interface.
25	DRIVE	O	EFM driver ON/OFF signal output.
26	—	—	Not used.
27	—	—	
28	—	—	
29	—	—	
30	—	—	
31	—	—	
32	—	—	
33	—	—	
34	—	—	
35	—	—	
36	—	—	
37	MP	—	Connected to VSS.
38	SRST	I	MD microprocessor reset signal input.
39	DGND	—	Connected to VSS.
40	XTALO	O	External system clock oscillation crystal connection terminal 1.
41	XTALI	I	External system clock oscillation crystal connection terminal 2.

Pin No.	Pin Name	I/O	Description
42	ARDY	I	Ready signal input for system control interface.
43	SIN	I	Serial data input for system control interface.
44	SOUT	O	Serial data output for system control interface.
45	ACLK	O	Serial clock output for system control interface.
46	XLAT	O	CXD2652 interface latch signal output.
47	XRST	O	CXD2652 reset signal output.
48	XSTBY	O	CXA2523 standby signal output.
49	—	—	Not used.
50	AVSS	—	Connected to VSS.
51	AVREF	—	Connected to VDD.
52	AVDD	—	
53	—	—	Not used. (PLL UP)
54	—	—	
55	—	—	
56	SLF	—	
57	SRF	—	
58	TEMP	—	
59	MAGIC	—	
60	—	—	
61	TEST	—	
62	DISCPRO	I	DISC write-protection switch input.
63	MNT3	I	CXD2652 monitor signal input 3.
64	MNT2	I	CXD2652 monitor signal input 2.
65	MNT1	I	CXD2652 monitor signal input 1.
66	MNT0	I	CXD2652 monitor signal input 0.
67	SENS	I	CXD2652 SENS signal input.
68	FLG	I	The terminal monitoring the flag included in the SRDT of the CXD2652 interface.
69	—	—	Not used.
70	—	—	
71	P-CONT	—	
72	RFSW	—	
73	—	—	
74	—	—	
75	DQSY	I	DIGITAL-IN SUB-Q sync input.
76	XINT	I	CXD2652 status sync input.
77	SRDT	I	CXD2652 interface serial data input.
78	SWDT	O	CXD2652 interface serial data output.
79	SCLK	O	CXD2652 interface serial clock output.
80	SQSY	I	SUB-Q, ADIP sync input.
81	—	—	Not used.
82	—	—	

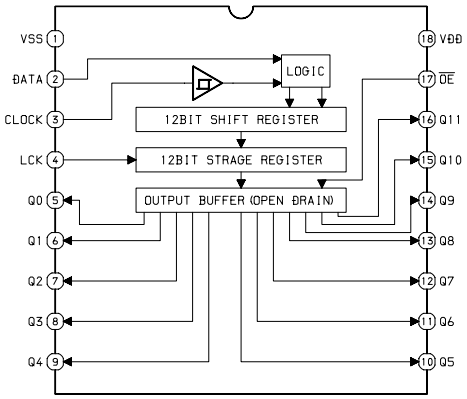
Pin No.	Pin Name	I/O	Description
83	—	—	Not used.
84	TXI	—	Connected to VSS.
85	TXO	—	Open. (Not used)
86	VSS	—	Connected to VSS.
87	VDD	—	Connected to VDD.
88	NC	—	
89	—	—	Not used.
90	DRVMUTE	O	BA5970FP mute signal output.
91	—	—	Not used.
92	—	—	
93	—	—	
94	—	—	
95	RECP	O	Laser power selection signal output.
96	TX	O	Record data output enable signal output.
97	MOD	O	RF modulation circuit ON/OFF signal output.
98	OPMUTE	O	Laser mute signal output.
99	ARST	O	AK4512 reset signal output.
100	DENF	O	De-emphasis ON/OFF signal output.

IC BLOCK DIAGRAM

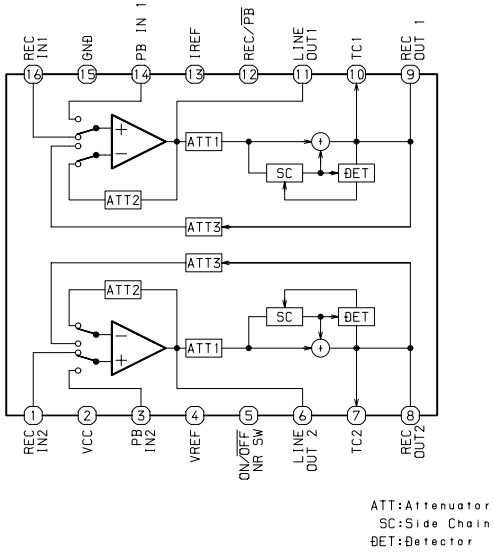
IC, BA5936



IC, BU2092F

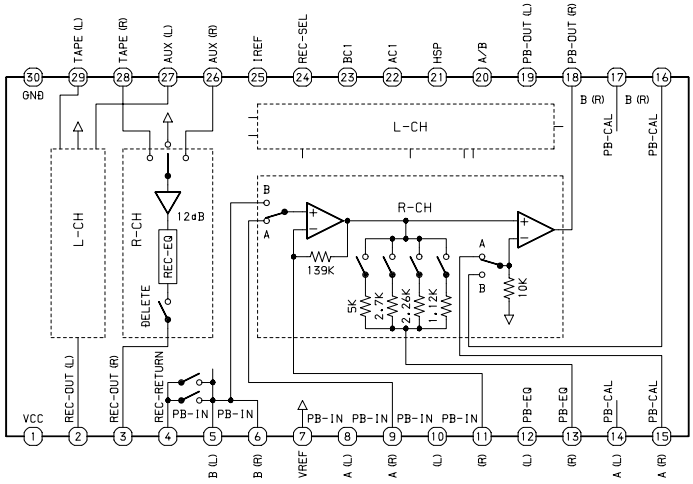


IC, CXA1553P

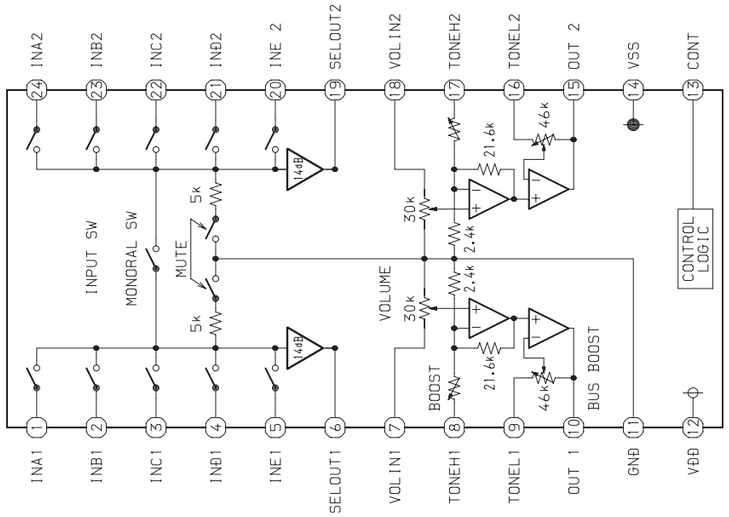


ATT:Attenuator
SC:Side Chain
ĐET:Đetector

IC, HA12211



IC, M62495FP



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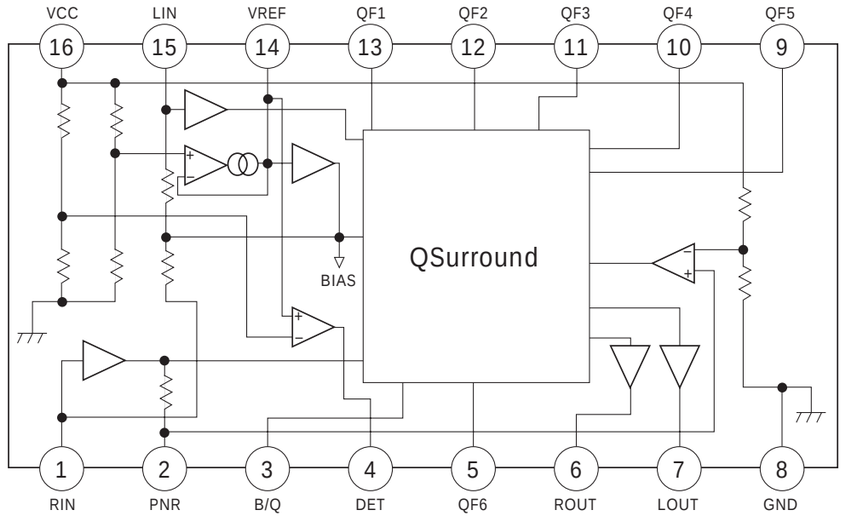

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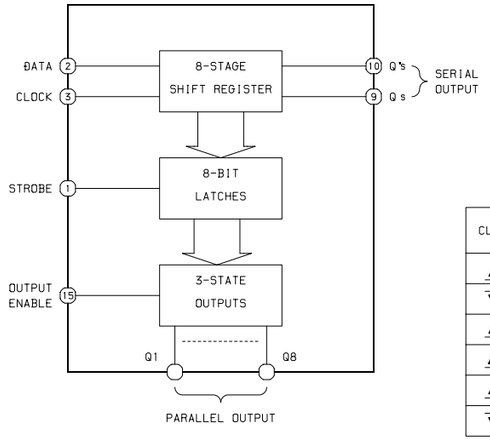


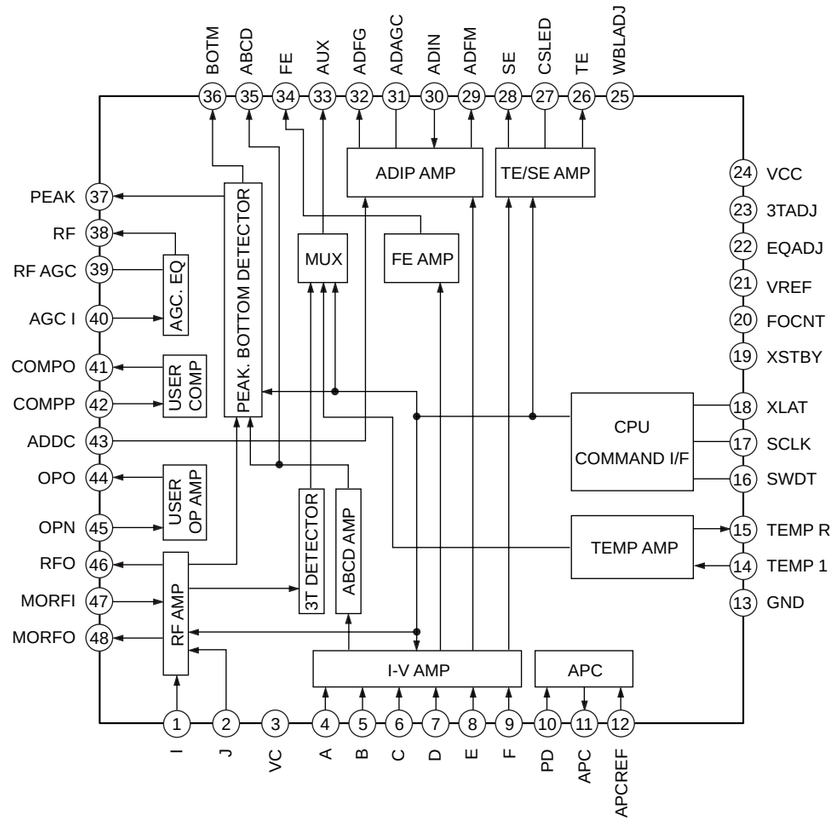
TRUTH TABLE

CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
↑	L	×	×	Z	Z	Q7	NO Chg.
↓	L	×	×	Z	Z	No Chg.	Qs
↑	H	L	×	No Chg.	No Chg.	Q7	No Chg.
↑	H	H	L	L	Qn-1	Q7	No Chg.
↑	H	H	H	H	Qn-1	Q7	No Chg.
↓	H	×	×	No Chg.	No Chg.	No Chg.	Qs

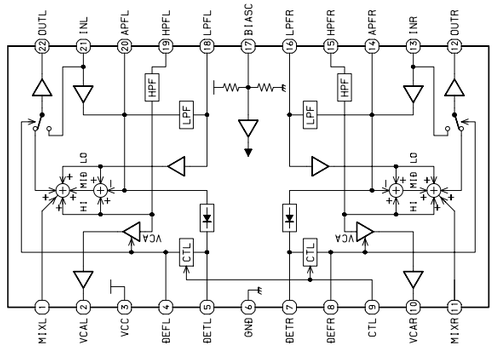
Z=High Impedance

×=Don't Care

IC, CXA2523AR

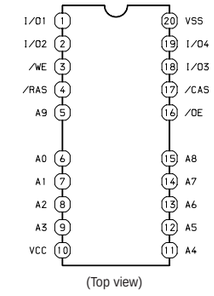


IC, BA3880FS



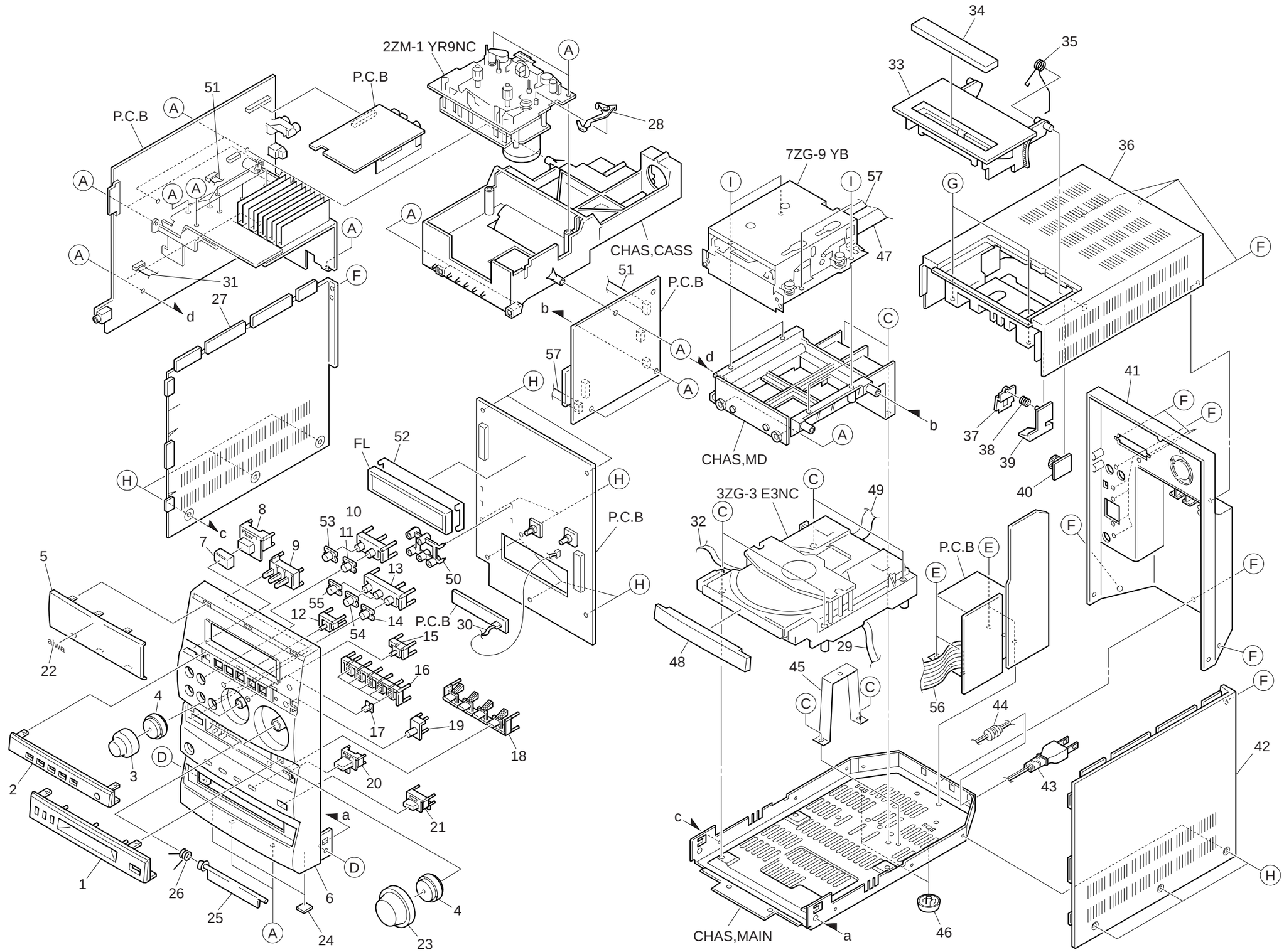
IC, MN41V4400SJ-08

Pin No.	Signal name		
	Power supply/ Clock	Input	Out-put
1			I/O1
2			I/O2
3	/WE		
4	/RAS		
5		A9	
6		A0	
7		A1	
8		A2	
9		A3	
10	VCC		
11		A4	
12		A5	
13		A6	
14		A7	
15		A8	
16	/OE		
17	/CAS		
18			I/O3
19			I/O4
20	VSS		



(Top view)

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-CL4-007-010		PANEL,MD
2	8Z-CL4-087-110		PANEL,FUNC EX<K>
2	8Z-CL4-088-110		PANEL,FUNC EZ<EZ>
3	8Z-CL4-025-010		CAP, JOG
4	8Z-CL4-208-010		KNOB,RTRY
5	8Z-CL4-009-010		WINDOW,FL<K>
5	8Z-CL4-086-010		WINDOW,FL EZ<EZ>
6	8Z-CL4-084-010		CABI,FR EX<K>
6	8Z-CL4-085-010		CABI,FR EZ<EZ>
7	8Z-CL4-023-010		CAP, PWR
8	8Z-CL4-209-010		BTN,PWR
9	8Z-CL4-020-010		BTN,MD
10	8Z-CL4-015-010		BTN,CONT 1
11	8Z-CL4-026-010		CAP, PLAY
12	8Z-CL4-018-010		BTN,MODE
13	8Z-CL4-016-010		BTN,CONT 2
14	8Z-CL4-028-010		CAP, FF
15	8Z-CL4-017-010		BTN,ENTER
16	8Z-CL4-206-010		BTN,FUNC
17	8Z-CL4-013-010		LENS,FUNC
18	8Z-CL4-022-010		BTN,REC
19	8Z-CL4-014-010		BTN,DEMO
20	8Z-CL4-019-110		BTN,EJECT
21	8Z-CL4-021-110		BTN,OPEN
22	87-B00-010-010		BADGE,AIWA 30.5-5.2 S 2.5L
23	8Z-CL4-024-010		CAP, VOL
24	80-VT1-202-010		FELT,12.5-15.5-2
25	8Z-CL4-012-010		PANEL,FLAP
26	88-CE2-209-010		SPR-T,MD
27	8Z-CL4-004-010		PANEL,SIDE L
28	82-ZM1-263-110		LVR,EJECT L
29	88-906-251-110		FF-CABLE,6P 1.25
30	88-CE2-659-010		F-CABLE,2P 2.5 100MM (4MM)
31	8Z-CL4-655-010		CONN ASSY,7P V RPH SHLD
32	88-905-351-110		FF-CABLE, 5P 1.25 350MM
33	8Z-CL4-011-110		BOX,CASS
34	8Z-CL4-010-010		WINDOW,CASS
35	82-NF5-218-010		SPR-T,EJECT 1 (SIN)
36	8Z-CL4-041-010		CABI,TOP T
37	88-CD5-203-010		HLDR,LOCK 2N
38	88-CD5-213-010		SPR-C,LOCK
39	82-NF5-229-010		PLATE,LOCK
40	87-063-165-010		OIL-DMPR 150
41	8Z-CL4-053-010		PANEL,REAR EZ
42	8Z-CL4-005-010		PANEL,SIDE R
⚠ 43	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI<EZ>
⚠ 43	87-A80-108-010		AC CORD ASSY,K BLK 3P<K>
44	87-085-185-010		BUSHING, AC CORD (E)
45	8Z-CL4-207-010		HLDR,HT-SINK
46	81-669-025-010		FOOT, H11
47	8Z-CL4-641-010		FF-CABLE, 14P 1.0 550MM
48	8Z-CL4-008-010		PANEL,CD
49	8Z-CL4-642-010		FF-CABLE, 16P 1.0 320MM
50	8Z-CL4-205-010		GUIDE,CONT LED
51	88-908-271-110		FF-CABLE, 8P 1.25 270MM
52	8Z-CL4-204-010		HLDR,FL
53	8Z-CL4-027-010		CAP, STOP
54	8Z-CL4-029-010		CAP, REW
55	8Z-CL4-030-010		CAP, PAUSE
56	8Z-CL4-658-010		F-CABLE,10P 2.5 300MM
57	88-CE2-640-010		FF-CABLE, 8P 1.0 300MM N
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-751-075-210		VT2+2.6-10
C	87-067-584-010		TAPPING SCREW, BVT2+3-6
D	87-591-094-010		QIT+3-6 GOLD
E	87-067-585-010		TAPPING SCREW, BVTT+4-6
F	87-067-761-010		TAPPING SCREW, BVT2+3-10
G	87-B10-071-010		BVT2+3-16 W/O SLOT B
H	87-B10-068-010		UTT2+3-6 W/O SLOT CR
I	87-067-703-010		BVT2+3-10 W/O SLOT

COLOR NAME TABLE

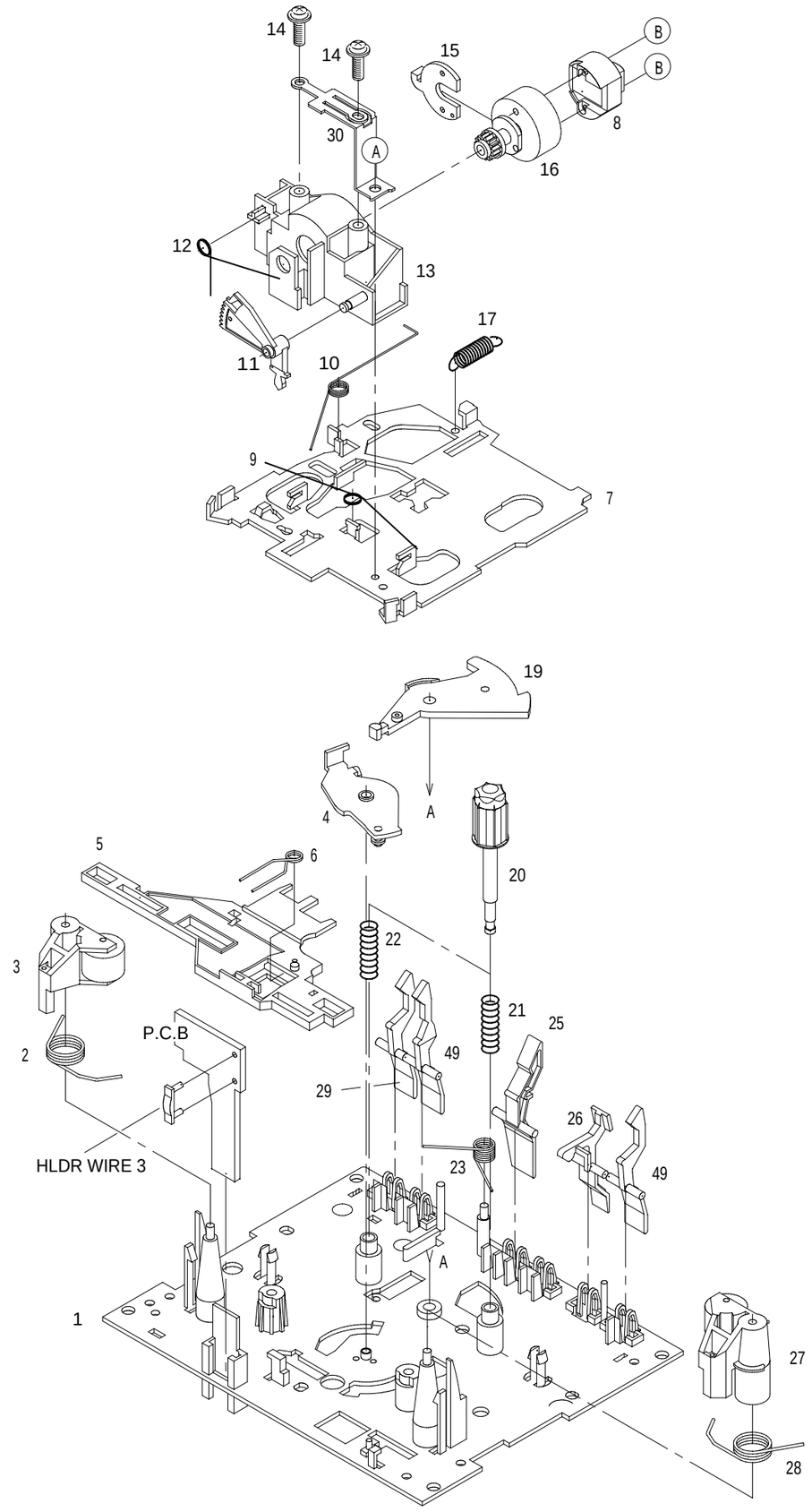
Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

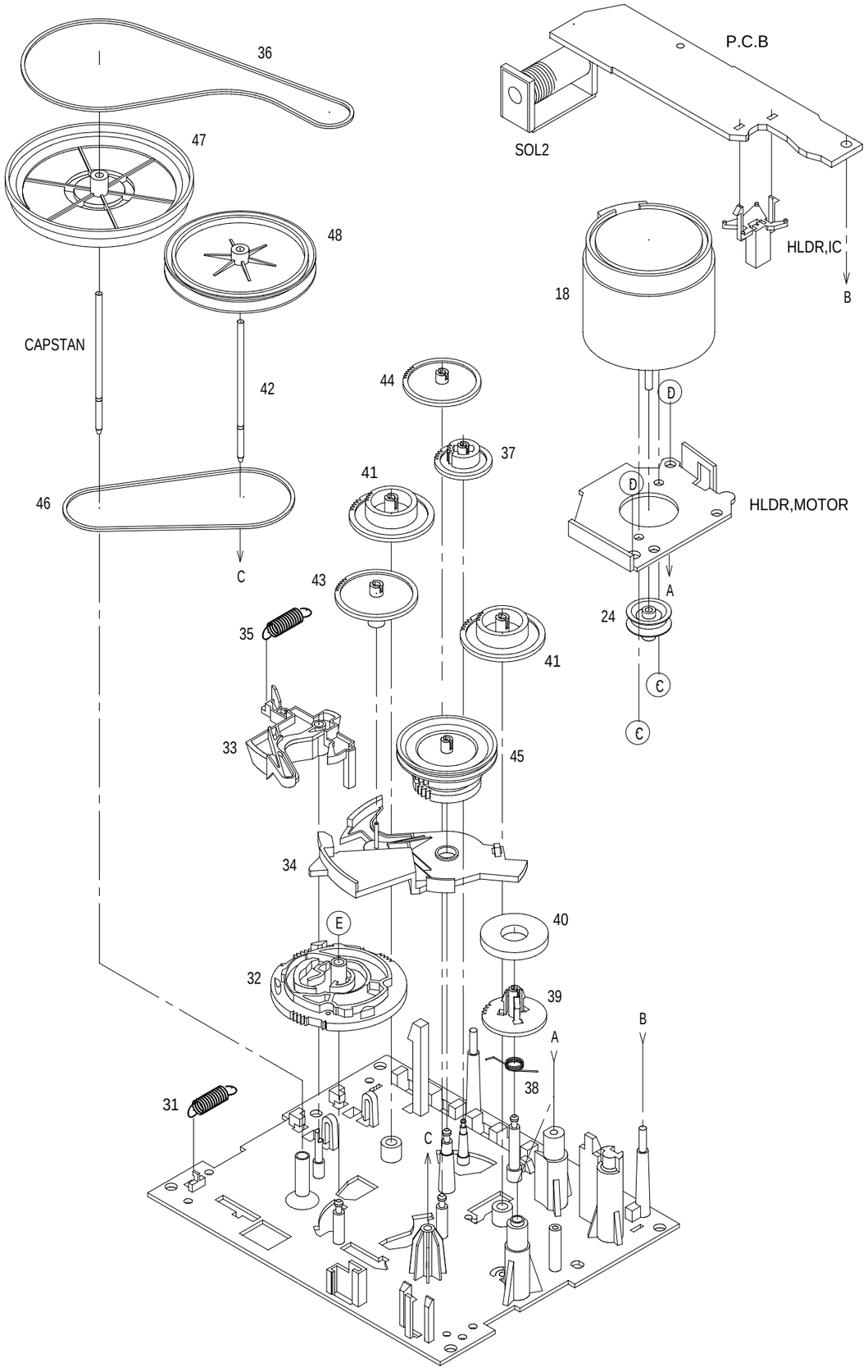
TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

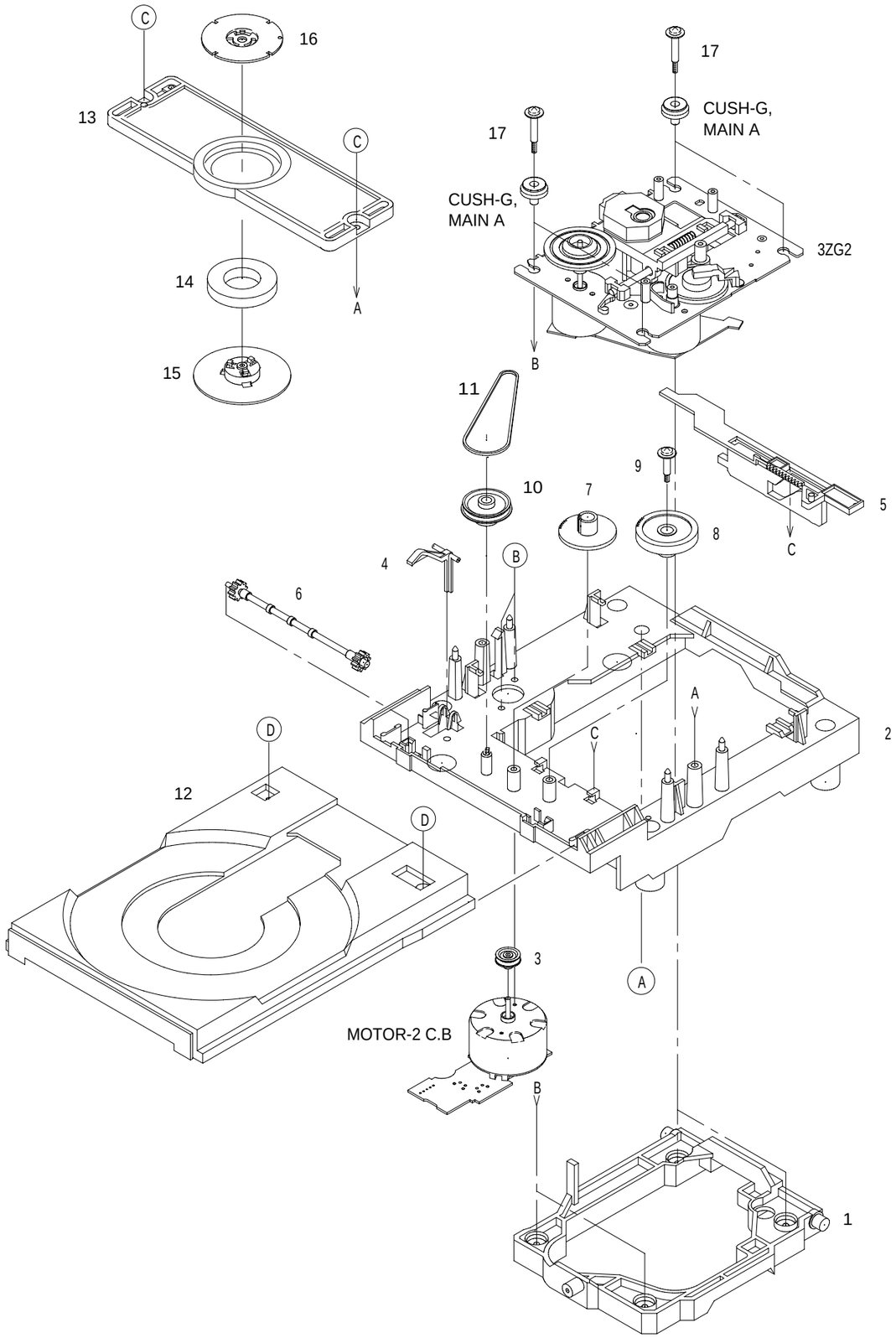
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM1-327-310		CHAS ASSY,RM
2	82-ZM1-258-210		SPR-T,PINCH L
3	82-ZM1-341-210		LVR ASSY,PINCH L2
4	82-ZM1-333-210		PLATE,LINK2
5	82-ZM1-266-310		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-910		CHAS,HEAD
8	87-A91-176-010		HEAD,RPH HADKH56
9	82-ZM1-269-210		SPR-T,BRG
10	82-ZM1-219-110		SPR-T,LINK
11	82-ZM1-210-110		GEAR,H T
12	82-ZM1-213-010		SPR-T,HEAD
13	82-ZM1-207-910		GUIDE,TAPE
14	82-ZM1-283-310		S-SCREW,AZIMUTH
15	82-ZM1-314-110		PLATE,HEAD
16	82-ZM1-208-310		HLDR,HEAD
17	82-ZM1-218-010		SPR-E,HB
18	87-045-347-010		MOT,SHU2L 70
19	82-ZM1-222-210		LVR,PLAY
20	82-ZM1-217-410		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-410		SPR-C,BT L
23	82-ZM1-257-010		SPR-T,CAS
24	82-ZM1-247-210		PULLEY,MOTOR
25	82-ZM1-242-010		LVR,CAS
26	82-ZM1-243-010		LVR,STOP
27	82-ZM1-344-210		LVR ASSY,PINCH R2
28	82-ZM1-259-210		SPR-T,PINCH R
29	82-ZM1-240-110		LVR,REC(*)
30	82-ZM1-298-010		SPR-P EARTH
31	82-ZM1-255-310		SPR-E,LVR DIR
32	82-ZM1-221-310		GEAR,CAM(*)
33	82-ZM1-227-310		LVR,TRIG
34	82-ZM1-224-410		LVR,FR
35	82-ZM1-305-210		SPR-E,TRIG 2
36	82-ZM1-340-010		BELT,SBU MAIN2
37	82-ZM1-223-010		GEAR,PLAY
38	82-ZM1-322-010		SPR-T,FR 60
39	82-ZM1-220-210		GEAR,IDLER
40	82-ZM3-616-010		RING MAGNET 4
41	82-ZM1-216-510		GEAR,REEL
42	82-ZM1-236-010		CAPSTAN,2-41.5
43	82-ZM1-225-210		GEAR,FR
44	82-ZM1-226-010		GEAR,REW
45	82-ZM3-333-310		SLIP DISK ASSY 2
46	82-ZM1-338-110		BELT,FR 4
47	82-ZM1-349-110		FLY-WHL,R W
48	82-ZM1-348-110		FLY-WHL,L W
49	82-ZM1-241-310		LVR,MC
A	82-ZM1-315-010		S-SCREW GUIDE TAPE
B	80-ZM6-207-010		V+1.6-7
C	87-251-070-410		U+2.6-3
D	87-741-073-410		UT2+2.6-6 GLD
E	87-B10-008-010		W-P,2.08-8-0.4-SLIP

TAPE MECHANISM EXPLODED VIEW 1/1





CD MECHANISM EXPLODED VIEW 1/2

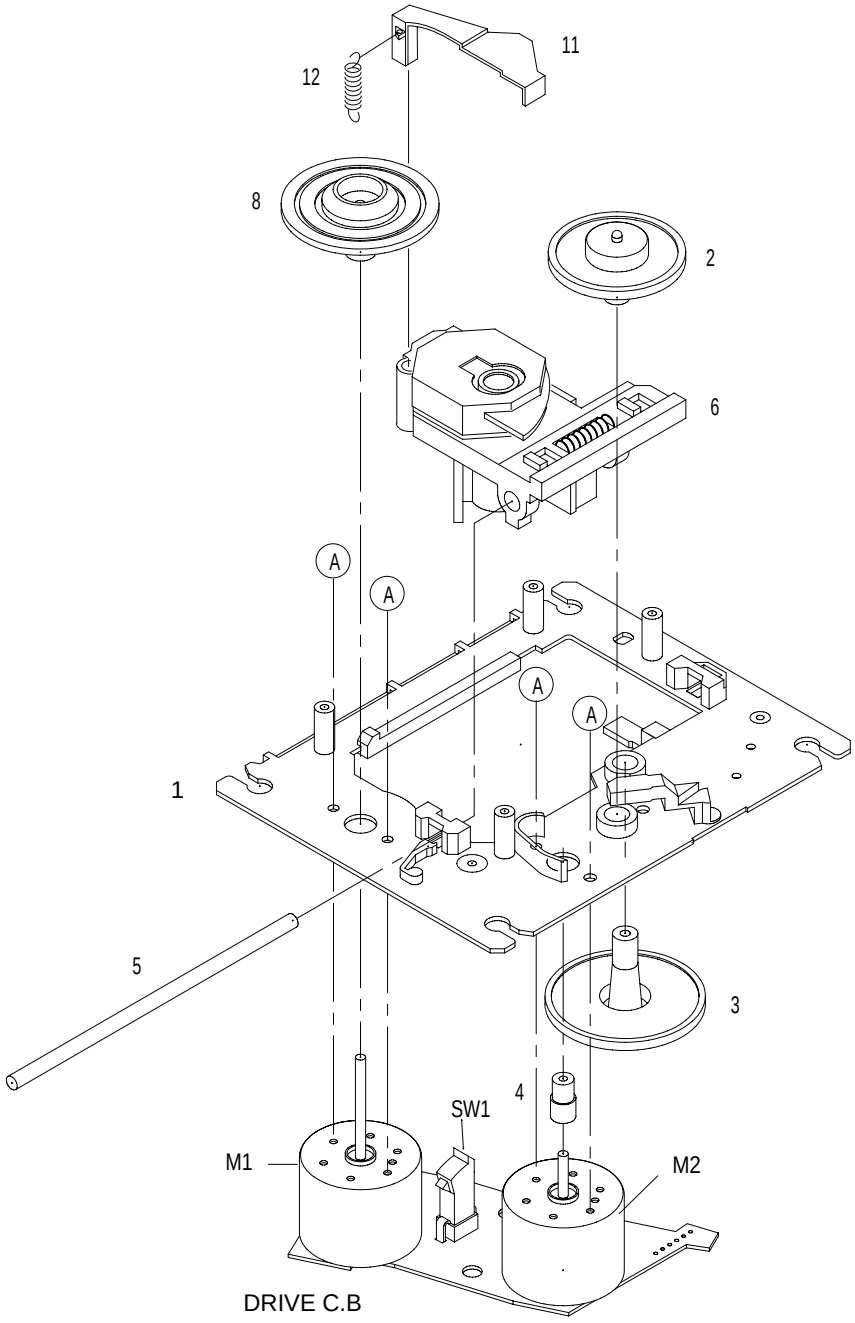


CD MECHANISM PARTS LIST 1/2

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG3-224-310		HLDR,M2
2	83-ZG3-228-610		CHAS,L6
3	83-ZG3-208-010		PULLEY,MOTOR
4	83-ZG3-213-010		LVR,SW
5	83-ZG3-209-610		CAM,SLIDE
6	83-ZG3-207-010		GEAR,TRAY
7	83-ZG3-204-210		GEAR,C
8	83-ZG3-205-010		GEAR,D
9	83-ZG3-217-010		S-SCREW,GEAR D
10	83-ZG3-220-210		GEAR,PULLEY 2
11	83-ZG3-214-010		BELT,L
12	83-ZG3-229-410		TRAY,CD 2
13	83-ZG3-230-010		HLDR,CHUCK 2
14	83-ZG3-602-010		RING,MAG
15	83-ZG3-212-010		CAP,DISC
16	83-ZG3-219-010		PLATE,CLAMP
17	81-ZG1-254-010		S-SCEW,MECH HLDR
A	87-067-945-110		VFT2+3-12(F10)
B	87-251-071-110		U+2.6-4
C	87-512-074-210		VFT2+2.6-8
D	87-352-075-210		VT2+2.6-10

CD MECHANISM EXPLODED VIEW 2/2

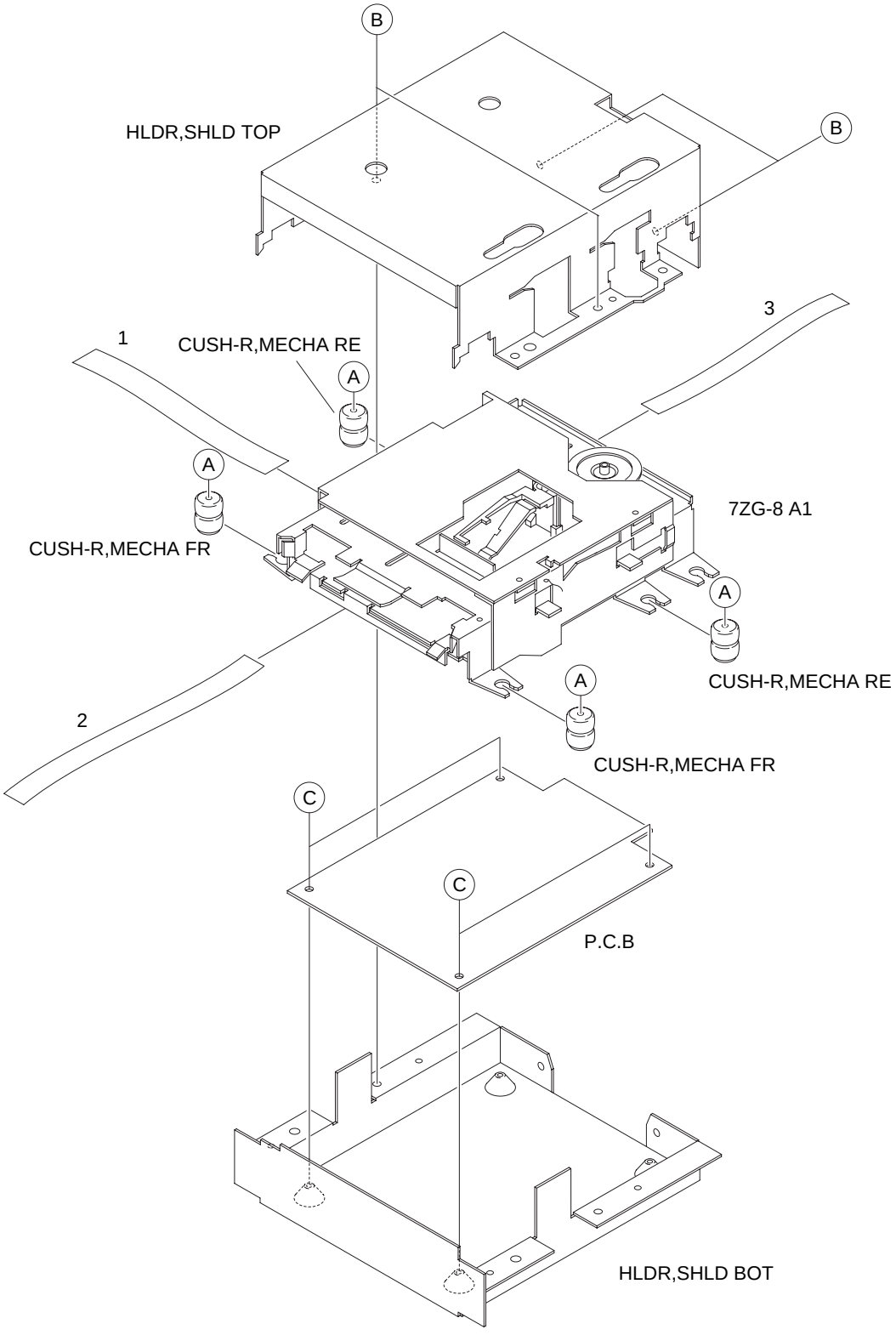


CD MECHANISM PARTS LIST 2/2

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-243-110		CHAS ASSY,SHT
2	83-ZG2-235-010		GEAR,A3
3	83-ZG2-205-210		GEAR,B
4	83-ZG2-236-010		GEAR MOTOR 3
5	83-ZG2-240-010		SHAFT,SLIDE 3
6	87-A90-836-010		PICKUP,KSS-213F
8	83-ZG2-233-010		TURN TABLE,A5
11	83-ZG2-245-110		LEVER,SHUTTER
12	83-ZG2-250-010		SPR-E,SHT 2
A	87-261-032-210		SCREW V+2-3

MD MECHANISM EXPLODED VIEW 1/3

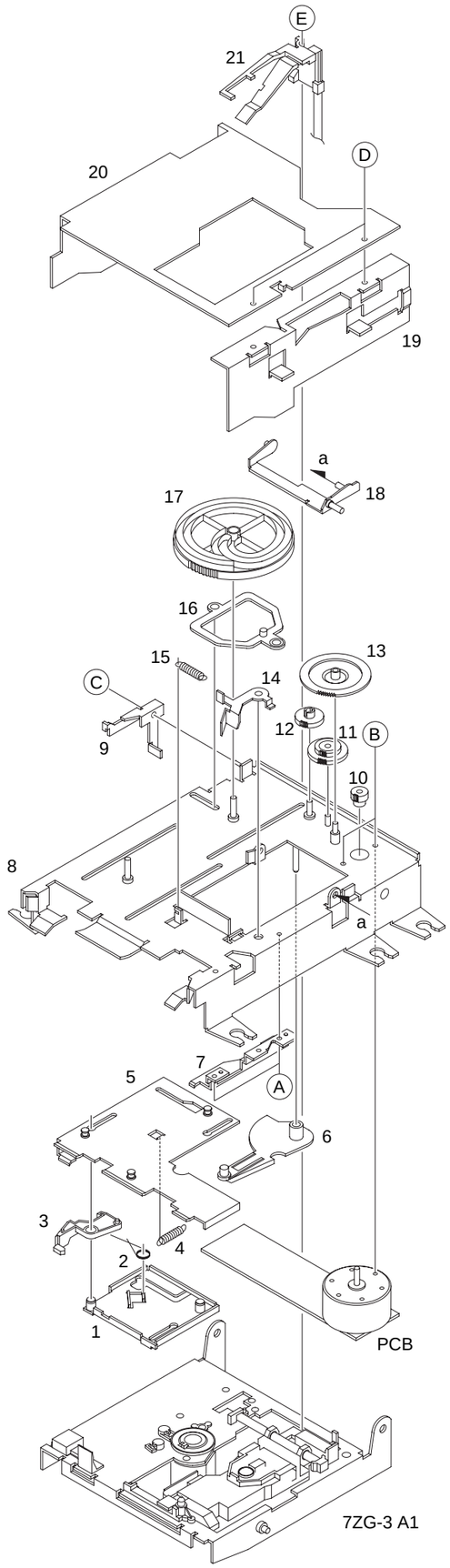


MD MECHANISM PARTS LIST 1/3

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	87-ZG9-602-010		FF-CABLE,21P 0.5 90MM
2	87-ZG9-603-010		FF-CABLE,8P 1.0 120MM
3	87-ZG9-604-010		FF-CABLE,5P 1.25 100MM
A	87-ZG9-206-010		S-SCREW,MD
B	87-067-688-010		BVTT+3-6
C	87-067-421-010		VTT+2-4

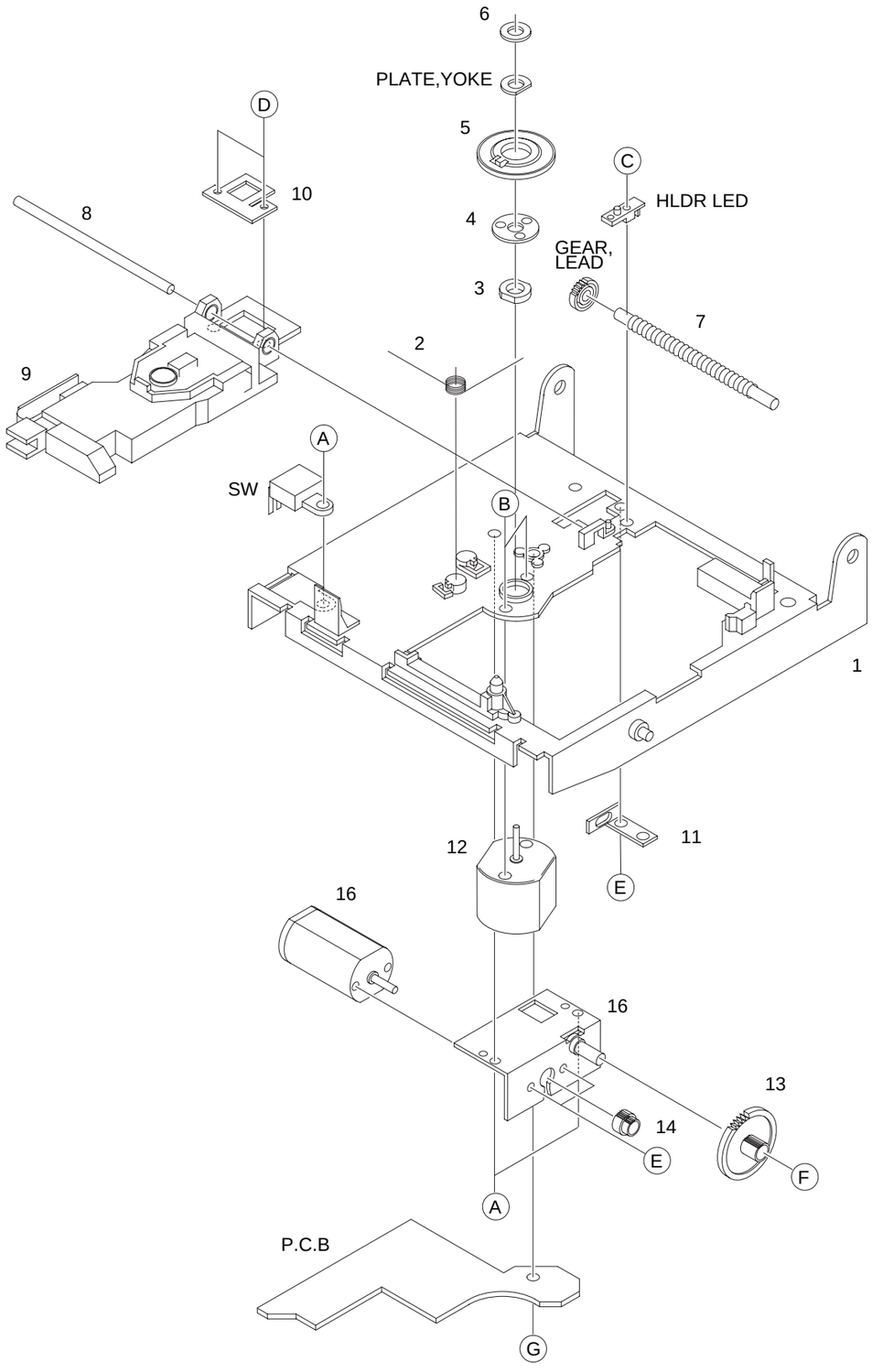
MD MECHANISM EXPLODED VIEW 2/3



MD MECHANISM PARTS LIST 2/3

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	87-ZG8-220-110		PLATE ASSY,LATCH
2	87-ZG8-259-010		SPR-T,LATCH
3	87-ZG8-230-110		LEVER,LATCH
4	87-ZG8-224-110		SPR-E,LATCH
5	87-ZG8-214-110		HLDR ASSY,CARTRIGE
6	87-ZG8-233-010		LEVER,SW H
7	87-ZG8-255-110		PLATE,CARTRIGE
8	87-ZG8-201-210		CHAS ASSY,MAIN
9	87-ZG8-256-010		LEVER,SW S2
10	87-ZG8-242-010		GEAR,MOT
11	87-ZG8-253-010		GEAR,REDUCTION S3
12	87-ZG8-246-010		GEAR,IDLER 2
13	87-ZG8-252-010		GEAR,REDUCTION L3
14	87-ZG8-231-010		LEVER,SHUTTER
15	87-ZG8-232-010		SPR-E,SHUTTER
16	87-ZG8-225-110		LEVER ASSY,CAM
17	87-ZG8-239-010		CAM,LOAD
18	87-ZG8-257-110		LEVER ASSY,REC
19	87-ZG8-213-010		PLATE,SLIDE R
20	87-ZG8-209-010		PLATE ASSY,SLIDE L
21	87-A90-605-010		HEAD,OWH RF325-74A
A	87-B10-129-010		VTT+1.7-3.5 W/O MFZN2-C
B	87-B10-128-010		V+1.7-2 W/O MFZN2-C
C	87-B10-130-010		W-P,1.23-3.1-0.25 SLIT
D	87-067-421-010		VTT+2-4
E	87-B10-131-010		VW+1.7-5 W/O MFZN2C



MD MECHANISM PARTS LIST 3/3

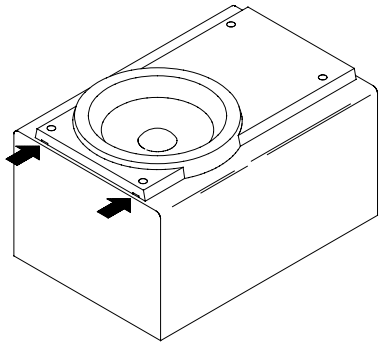
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	87-ZG3-202-010		CHAS ASSY,OUT-SERT
2	87-ZG3-214-010		SPR-T,SPINDLE-A
3	83-ZG5-308-010		BRG,1.5-2
4	83-ZG5-305-010		SPR-P,DISC
5	83-ZG5-302-010		TURN TABLE,MD1
6	83-ZG5-605-010		MAGNET,CHUCK
7	87-ZG3-212-010		SHAFT,LEAD
8	87-ZG3-211-010		SHAFT,GUIDE
9	87-A90-613-010		PICKUP,KMS-260A
10	87-ZG3-216-010		SPR-P,RACK
11	87-ZG3-213-010		SPR-P,LEAD
12	87-A90-413-010		MOT,FF-110PH 9
13	87-ZG3-206-010		GEAR,A
14	87-ZG3-205-010		GEAR,MOT SL
15	87-ZG3-208-010		HLDR ASSY,MOTOR
16	87-A90-616-010		MOT,FF-N30VA
A	87-261-547-310		V+2-3 BLK (1)
B	87-263-523-310		SCREW, V+1.7-2
C	87-261-509-310		SCREW, V+1.4-4
D	87-067-393-010		SCREW +1.4-1.4
E	87-261-503-310		PRECISION SCREW, V+1.4-2
F	87-078-033-010		PW 1.2-2.5-0.25 SLT
G	87-341-035-210		SCREW,UT1+2-6

SPEAKER DISASSEMBLY INSTRUCTIONS

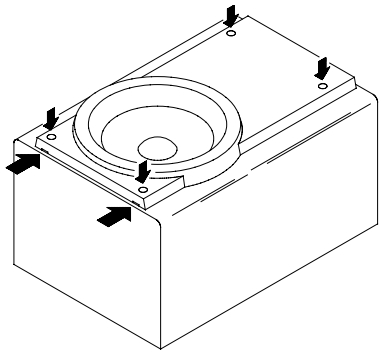
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit andthen remove the speaker units.



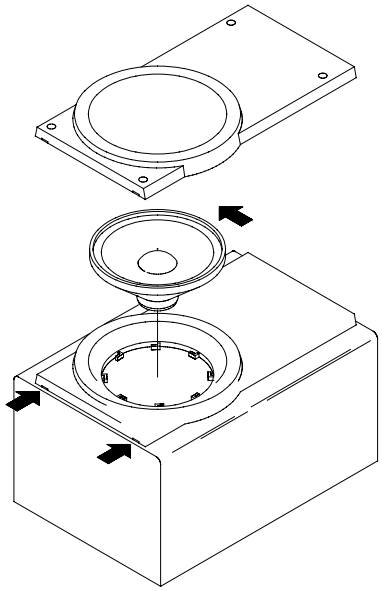
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hold where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

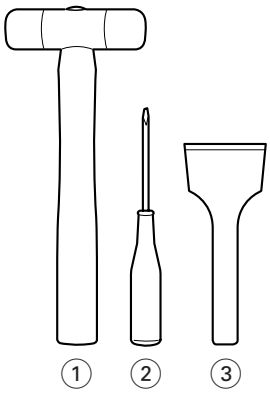


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows arround speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turnning to clock-wise direction unitil "click" sound comes out.



Type.4



TOOLS

① Plastic head hammer
② (⊖) flat head screwdriver
③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

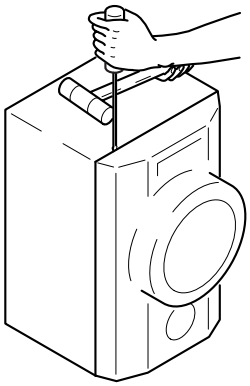


Fig-1

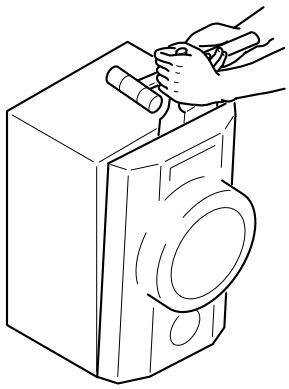


Fig-2

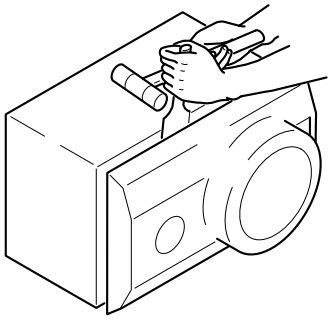


Fig-3

How to Attach the PANEL, FR

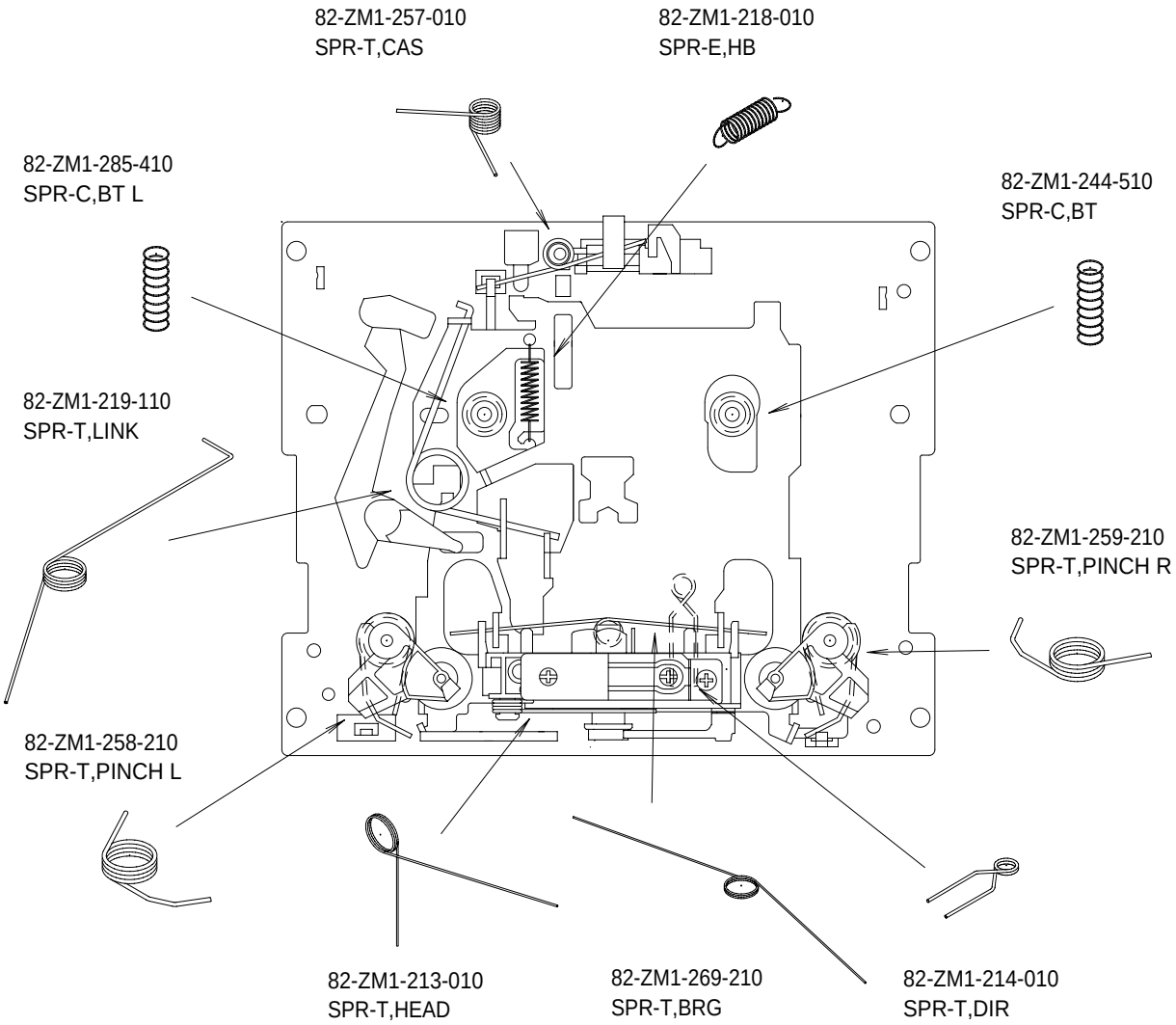
Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

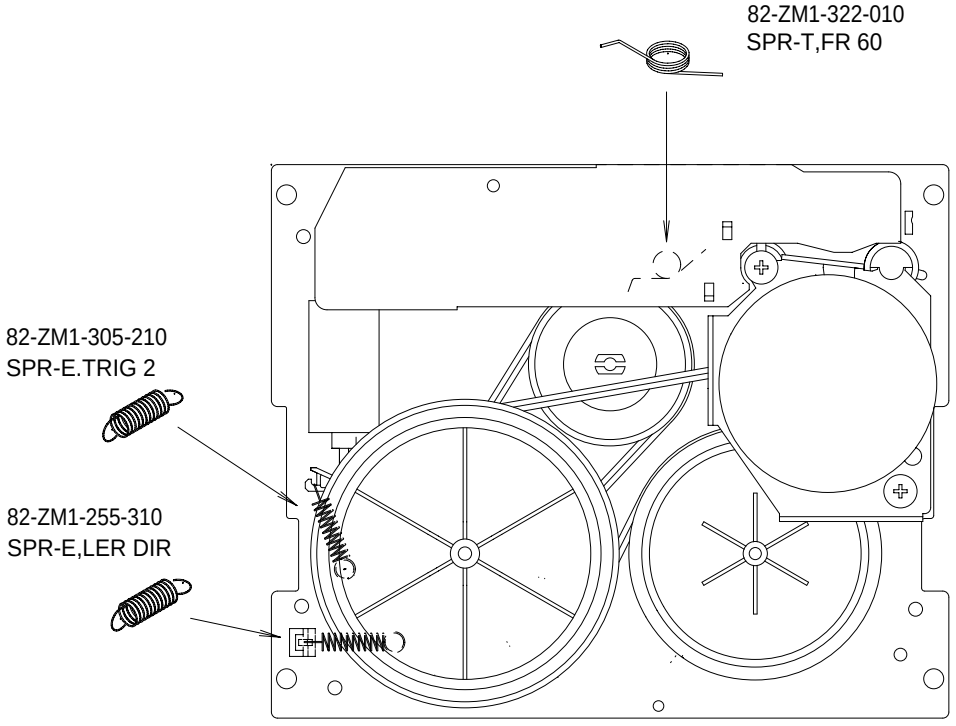
SPEAKER PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-CL4-970-010		GRILLE ASSY,FRAME
2	87-A90-193-010		HLDR,CV100 (B)
3	8Z-CL4-962-010		PANEL,FR
4	8Z-CL4-963-010		PANEL,TW
5	87-NSG-606-010		SPKR TW60
6	88-CL3-948-010		SPKR,W 130
A	87-067-579-010		TAPPING SCREW, BVT2+3-8
B	87-067-421-010		VTT+2-4

SPRING APPLICATION POSITION





サービス技術ニュース	
番号	連絡内容
G一　一	
G一　一	
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